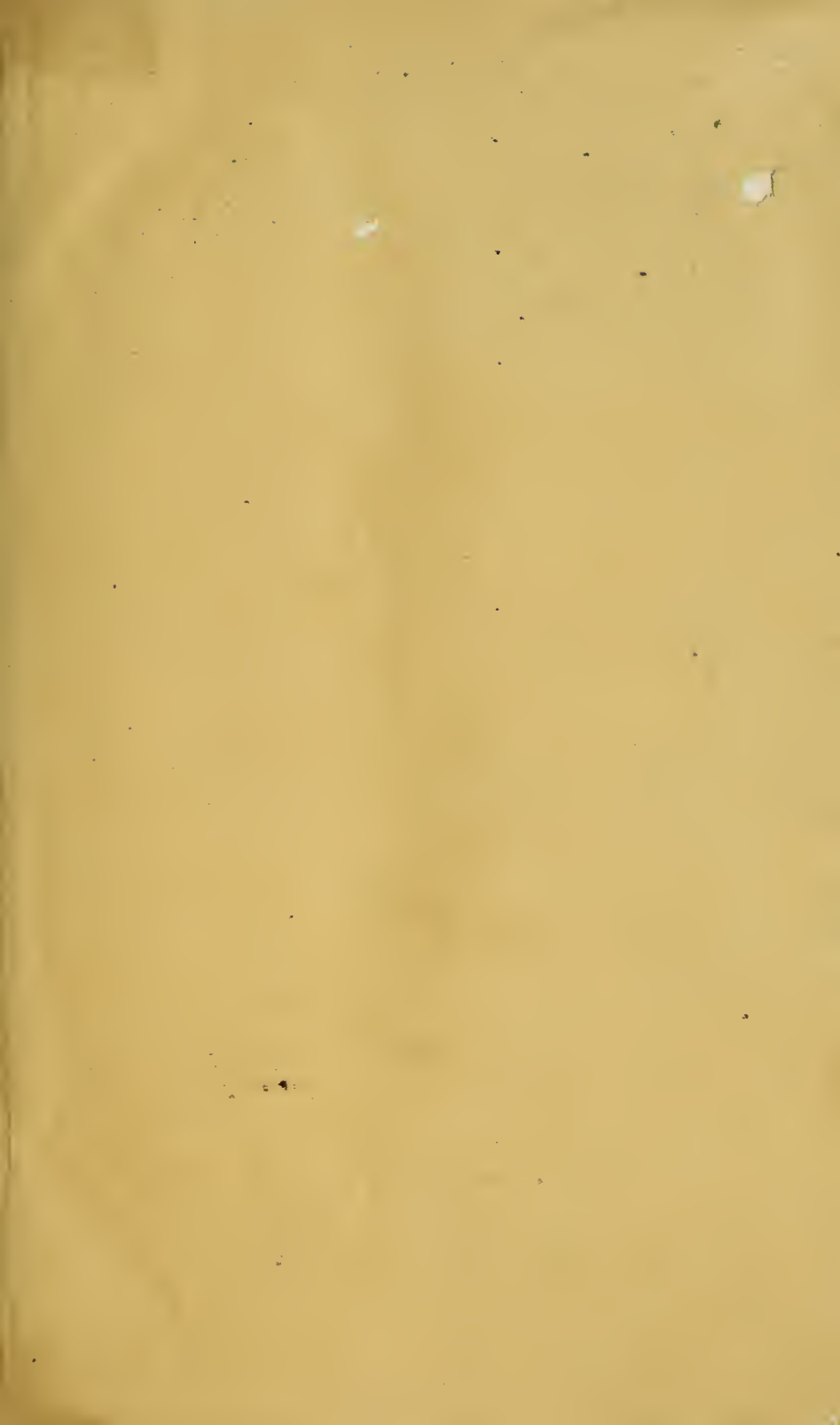


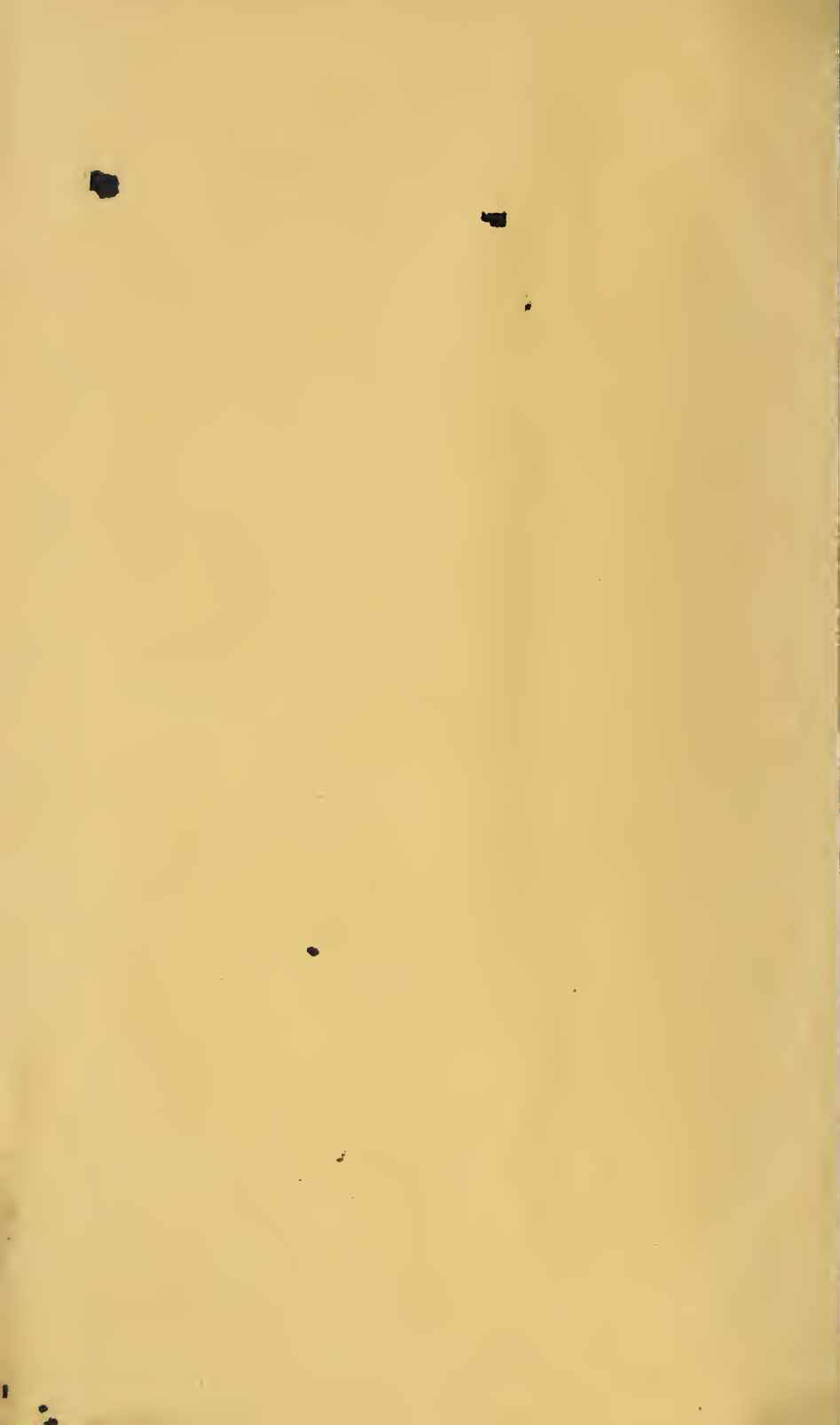


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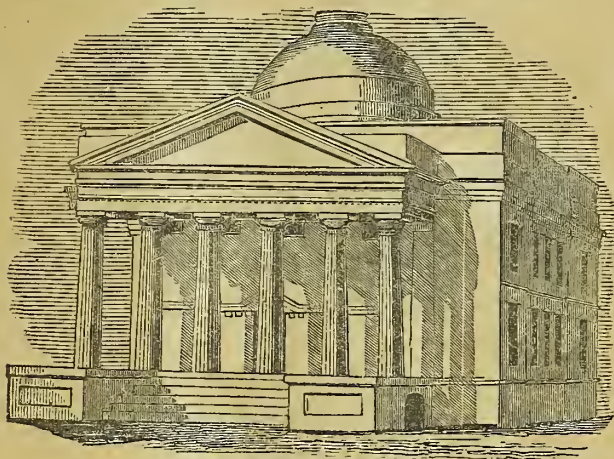


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SOUTHERN
MEDICAL AND SURGICAL JOURNAL.

EDITED BY

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Medical College of Georgia.

"Je prends le bien où je le trouve."

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ORIGINAL AND ECLECTIC.

ARTICLE I.

Female Medical Education. By JNO. STAINBACK WILSON,
M. D., of Airmount, Clarke county, Alabama.

In appearing as the advocate of Female Medical Education, we feel conscious that we may subject ourselves to the reproaches and animadversions of some worthy members of our profession. But believing as we do, that the education of females in certain branches of Medicine, is one of the greatest wants of our age and country; and entertaining the idea also that a measure fraught with such important consequences to society, has been too little considered or too hastily condemned by physicians, we are perfectly willing to incur the censures of the selfish and unreflecting, while we are cheered by the hope of eliciting the attention and co-operation of those who consider their own private interests as secondary to the advancement of the noble science of Medicine, and the promotion of the general good of mankind. Now, whether we are entitled to the honor of being considered one of the latter class or not, we can say in all truth and sincerity that we do most ardently desire the elevation of our profession, and the general diffusion of its benefits among all classes. As one of the means for the accomplishment of the former end—the elevation of the profession—

we have advocated the excommunication of all nostrum vendors and quack procurers: for the accomplishment of the latter—the general diffusion of its benefits—we suggest the education of female physicians, who will thus become the channels through which the blessings of scientific medicine may reach the fairest and best portion of the community; many of whom, in the present state of things, are not only deprived of these, but are subjected to numerous positive evils of the most grievous characters. But we proceed, without further preface, to invite attention, to other, and more specific reasons why we advocate female medical education. We will then consider now and where they should obtain it. And lastly, we will briefly indicate some of the obstacles that may interfere.

Why then do we contend for the medical education of females?

1st. Because we think that their mental capacities are not only sufficient for the successful practice of certain departments of the healing art; but that their *sexual idiosyncracies* would afford material aid in the diagnosis, and perhaps, in the treatment, of certain sexual diseases. We do not design entering into a discussion as to the mental equality of the two sexes, in every branch of science, or pursuit in life: we will simply declare our conviction that no such equality exists; but, on the contrary, that the mental, physical and psychological peculiarities of each sex, give to each peculiar advantages, in certain pursuits, when these are adapted to the characteristic differences indicated. Now, we assume the position that the practice of Obstetrics, and perhaps the treatment of some morbid sexual disorders, are eminently congenial to the mental, physical and psychologic peculiarities of the female sex: and we make this assumption with a full appreciation of the difficulties of this most important department of our science; for we have been painfully convinced of these by sad experience; still we think it will be admitted by all, that *tact*, acumen and promptitude, combined with manual dexterity, are more needed in the practice of obstetrics, than the higher reasoning powers which are generally conceded to our own sex. This being admitted, then, the conclusion is inevitable that this branch of medicine is particularly suited to the female mind; for it is a well-established

fact, that the distinguishing mental characteristics of the sex are—quickness of perception, and a *mental tact* which give to them a comprehension almost intuitive. The moral or psychological adaptation of woman needs no proof: all, who have been so fortunate as to receive the kind ministrations of mother, sister or wife, in sickness and distress, will respond with a warm heart to the simple self-evident declaration that woman is peculiarly qualified by nature for the relief of the afflicted of her own sex, by touching the tender chords of sympathy in a sister heart which vibrates responsive to her own. Having now demonstrated, as we hope, the mental and moral fitness of females for the practice of certain departments of medicine, we proceed to notice their physical adaptation; and under this head we will endeavor to explain what we mean by the sexual idiosyncrasy as an aid in diagnosis and therapeutics. This phrase may not express our precise meaning—still it is the best we can find; and we hope to be able to make it intelligible by the introduction of a homely illustration. If we mistake not, there is an old saw which runs thus: “Seeing is believing, but *feeling is knowing*.” Now, while this may not be received as axiomatic in every case, we think it is not devoid of truth when applied to the subject under consideration; for who will say that a woman is not more competent than the opposite sex, to comprehend the diagnostic value of certain symptoms and sensations originating in the sexual constitution, when she has *felt* many of those sensations, physiological and pathological, normal and abnormal, which characterize the protean derangements of her sex, and render them so difficult of comprehension, especially by one who only has a theoretical knowledge of them? This question may serve to indicate, in very general terms, what we mean by the adaptation of woman, in her “sexual idiosyncrasy.” We leave its further illustration, and special application, to others. But this is only part of the physical adaptation of woman, for the practice of some departments of medicine, for the smallness of her hand, and the delicacy of her touch, fit her peculiarly for those manipulations so often required in parturition, many of which are extremely painful, and even impracticable, when performed by the clumsy hand of a male.

2nd. We advocate female medical education, not only be-

cause woman is mentally, morally and physically worthy of its reception, but also because her natural qualifications, which have just been mentioned, give her a natural *right* to practice certain departments of medicine, at least. Shall the cry of the widow and the orphan, then, be unheeded by us? And shall we unjustly close the portals of the temple of Medicine against them, when they have a natural and inalienable right to enter? Many of this class need employment; and though this consideration alone may not be deemed sufficient, this, together with the reasons already given, and others, yet to be adduced, should entitle them to the privilege of engaging in a pursuit so honorable, lucrative and useful as the practice of Obstetrics, if not of other branches of medicine.

3rd. The medical education of females would relieve the physician from the practice of one of the most disagreeable and irksome branches of his profession—a branch which is (in a letter to the writer) denounced as “a real drudgery for a man of science, in most cases”—a branch which we believe would be readily given up, by the better part of our profession, if they could be convinced that the community would sustain no injury.

4th. We favor the medical education of females, not only for the reasons already given, but the greatest and last reason is this, viz: Because—we are convinced that *the safety and happiness, of a large portion, of the most refined and lovely women, (in the South particularly,) DEMAND it.*

Modesty is universally admired as the brightest gem in the beauteous diadem of female loveliness. And while we deplore the sad consequences of the morbid sensitiveness of females, in concealing those sexual secrets, which pertain to their nature, at the expense of health, and even life itself, we can but admire while we condemn and deplore; and we would fain devise some means which would secure the virtuous of the sex in the possession of those sacred treasures, without the payment of such a dreadful penalty. This can be accomplished only by qualifying females to administer to the necessities of their own sex, by bestowing upon them a proper medical education: this plan, and this only, will secure females from exposure, on the one hand, and the malpractice of ignorant midwives on the other.

It is needless to enlarge upon the evils to which women are exposed, more especially in the South, in the present state of things; for every physician who has a practice of any extent, sees, almost daily, cases which have become incurable, on account of the reluctance of females to submit to the use of the speculum; and every one knows what disadvantages he frequently encounters in the treatment of uterine and other diseases, for the want of a proper examination. And we venture the assertion, that there is no physician who has practiced medicine for five years, who has not had cases which brought reproach upon himself and upon his profession, because he, in compliance with the natural aversion of females, failed to avail himself of the speculum and other means involving exposure, even when convinced of their almost indispensable necessity; and of the extreme uncertainty of being able to institute a successful plan of treatment without them. Again: we believe that three-fourths, or more, of the cases of leucorrhœa, dysmenorrhœa, menorrhagia, lumbago, &c., which linger along under an inefficient or palliative treatment—the opprobria of medicine and the curse of the whole menstrual life of many females—could be relieved by one or two local applications, were it not for the almost insuperable objections of the fair sufferers, to the inevitable exposure of their sexual secrets, to a male physician. But we can only hint at some of the most prominent of the fearful evils to which they are exposed in the absence of female physicians; one of these—the malpractice of uneducated midwives—has already been alluded to, and is of too great magnitude to be passed without further consideration. The extent to which this class is patronized, is one of the strongest evidences of that horror of exposure, to which we have adverted; while the injuries inflicted on children and parturient females, by their mismanagement and gross ignorance, are the most potent arguments that could possibly be adduced in favor of educated female physicians. Who has not seen mothers rendered miserable for life, by prolapsus and inversion of the uterus; rupture of the perineum; rectal and vaginal fistulæ, &c., &c.; all of which have been occasioned by the ignorance and unskilfulness of the “old grannies,” to whom females are almost compelled to submit their lives, in the present state of things? Who has

not been shocked by seeing tender infants, not an hour old, gorged with fat bacon, with the view of purging off the "meconemy," to say nothing of the thousand and one other foolish and destructive errors so rife among this ignorant class?

To recapitulate, then, *why* we favor female medical education. 1st. Because females are mentally, morally and physically adapted to the practice of certain departments of medicine, and more especially those pertaining to their own sex. 2d. Because many females need employment; and possessing a natural right, as a consequence of demonstrated natural qualifications, it is a wrong on our part, for us to refuse them admittance into the profession. 3d. Because physicians would be relieved, &c. 4th. Because the salvation of females, from exposure on the one hand, and from irremediable diseases and malpractice on the other, *demand*s it.

The next thing which will engage our attention, is, "*how*," or to what extent females should be educated. It has already been seen that we have advocated their education for certain departments of medicine only. It is hardly necessary for us to say, then, that we are opposed to the Northern plan, lately introduced, of granting the Doctorate to females. This we consider a great error, and one well calculated to retard the progress of female medical education, for the following reasons: 1st. Because woman is *naturally* incapacitated for the *general* practice of medicine. And 2d. If she is qualified by nature and education for the practice of one or two departments only, it is manifestly a falsehood to say that she is worthy of the "Degree," "*et esse honoratum gradu medicinæ doctoris.*" Now, we would not have any one to entertain the idea for a moment, that we really suppose, that the above phrase, taken from a medical diploma, means all that it implies; and that *all* are considered *justly* entitled to the honor, who receive a diploma with the "esse honoratum," "dignus," "probasset," and other flattering words, which look so pretty in fancy type: still there is some *appearance*, of propriety at least, in this, when it is applied to a male who has given some attention to all the branches of medicine, and who may become a proficient in them at some future time. We believe, then, that females should be educated, in certain branches only; and therefore that it would be

absurd to confer on them the comprehensive degree of Doctor of Medicine. But it may be said, that the human system is so complete, and all its organs and functions are so intimately associated, that one branch of medicine cannot be practiced successfully, without a knowledge of the whole. While we are willing to admit the truth of this assertion to some extent, we still think it should be received with some qualification; for no one will pretend to say that a knowledge of Physiology, Chemistry, Surgery, Materia Medica, Practice, and Medical Jurisprudence, is essential to the successful practice of Obstetrics proper; but, on the contrary, all will admit that a thorough understanding of the anatomy of the parts concerned in parturition, together with a full comprehension of the mechanism of this process, is all that is really necessary. Still, while we thus restrict the absolutely indispensable obstetric knowledge to two points, we would not be understood as underrating the value of more extensive attainments; for we can readily imagine cases in which an acquaintance with Medical Jurisprudence and the diseases of the puerperal state would be very desirable, if not indispensable. Taking it for granted, then, that females should be educated for the practice of Midwifery, the important question arises, as to whether they should be confined strictly to this branch; or whether their education should comprehend the diseases, general or special, pertaining to the sex.

This part of our subject is environed with difficulties not easily surmounted; for the peculiar sexual diseases of females—to say nothing of those to which they are subject in common with males—are so obscure, so complicated, and so obstinate, as to render extensive attainments in the various branches of the healing art essential to the successful treatment of the former. This being admitted, then, the question recurs in this form: Should the education of females be sufficiently comprehensive to enable them to treat all the *purely sexual* diseases of women? To this, we must answer in the affirmative, for the following reasons: 1st. Because diversified acquirements would be desirable, if not indispensable, in the practice of obstetrics alone; for instance, a knowledge of the symptomatology of threatened convulsions, phlegmasia dolens, puerperal fever, and other diseases of child-bed, might be of immense advantage, by

giving the patient the benefit of *timely* medical aid. But the 2nd, and great reason, why we think the education of females should embrace the diseases peculiar to their sex, is this: Because, without this, the natural modesty of females would still leave them exposed to all the evils of incurable disease, or malpractice, to which we alluded, while advocating obstetric education. And we must be allowed to declare our candid conviction, that the evils to which females are exposed, from neglected diseases of the genitalia, are far greater than those to which they are subjected in parturition—even in ignorant hands; for the latter is a physiological act, and it *will* terminate favorably, in the vast majority of cases, if only *let alone*; while most of the female diseases referred to are progressive, and their end is irremediable disorganization and a lingering death. Again: it is a fact, which is generally known to the profession, that females are less averse to male attention in parturition, than to the use of the speculum and other diagnostic and therapeutic measures which are necessary in the treatment of their diseases; because, in the former case, the mind is wholly occupied by the anxieties of the present, while this state of mind does not exist in the latter: we have, then, in this case, not only a negative state of mind, which is very unfavorable to passive submission, but conjoined with this, the unavoidable exposure is much greater than it would be in simple manual assistance.

Having now, in a brief and imperfect manner, indicated the reasons why we favor the extension of female education—while we at the same time oppose the granting of the Doctorate—it remains for us to reconcile the apparent inconsistency, by showing that females can be qualified to treat all the “*purely sexual*” diseases, without giving their attention to every department of medicine. It has already been seen that we consider “*extensive attainments*” necessary to the successful management of this class of diseases:—the fundamental branches of female medical education, then—the branches which we deem essential, and at the same time *sufficient*, for the accomplishment of all the objects indicated in this article, should, in our opinion, be these: 1st. Anatomy (excluding surgical and pathological anatomy); 2d. Human Physiology; 3d. Medical Chemistry; 4th. *Materia Medica*; and 5th. Obstetrics, and the

Diseases peculiar to Females. We would give females five branches, then, as the basis of a medical education—enough, we think, if well learned, to enable them to treat “*purely sexual*” diseases with success: at the same time we would exclude from their course of study the two most important branches—Surgery and the general Practice of Medicine; and also the minor ones—Medical Jurisprudence and Pathological Anatomy—enough to deprive them of any just or well founded claim to the degree of “Doctor of Medicine.” We admit that this plan is obnoxious to objections; some of which will be noticed, in conclusion, under the head of “obstacles that may interfere.”

The next thing for consideration in the division made by us, is—*where* females shall be educated in medicine.

It is our decided opinion, that all of our Medical Colleges should have professors for the instruction of a class of females, in obstetrics and its collateral branches, at least, if not in all for which we have contended. It being once decided, that females should be educated, the advantages of the plan suggested are so obvious as to require but little attention; we will therefore only mention some of the most prominent of these. In the first place, the great expense of erecting new college buildings and purchasing materials for a museum, library, &c., would be saved; for the lectures to the female class could be delivered in the intervals between the lectures to the males: and we would suggest, *en passant*, that this arrangement might serve as a salutary check upon those Colleges which have adopted the injurious plan of giving two courses of lectures in the same year, each of which counts towards a degree! For it is fair to presume that those who have the control of such institutions, being influenced by a desire for gain, *might* be sustained by the “*consideration*” of a *paying* female class, although the interest and respectability of the outraged profession to which they belong, have failed to influence them. In the second place, we would have the comfortable assurance that females would thus receive an orthodox education—an education untainted by the heteroclitical errors which are likely to creep into those independent institutions that are too much surrounded by the external forces of Bloomerism and Woman’s Rights. In the third and last place, the plan suggested would place a medical education in the reach

of Southern and Western females, without subjecting them to the necessity of making a trip to Yankeedom—an advantage which should certainly not be disregarded, especially by the former class; for to say nothing of the distance, they might find it very inconvenient, to keep a negro servant, in that “higher-low” land. Before concluding this part of our subject, we would add that it would be necessary, and highly proper, to substitute for some of our present professorial corps, one or two female lecturers.

Having now considered “*why*”—“*how*”—and “*where*” females should be educated, the next and last division is the “obstacles that may interfere.” &c.

The first we meet on the list, is—the opposition of the medical profession. But although this is first in order, we do most sincerely hope that it is not first in magnitude; and animated by this hope, therefore, we will boldly meet the objections that may suggest themselves as likely to originate in this quarter. It cannot be denied, that female physicians would divide the practice, and consequently render it less lucrative than it is now; but admitting that the profits would be diminished, there would be a corresponding diminution of labor, which would give the male practitioner more time for study and reflection, and thus enable him to cultivate more successfully the vast field of Medicine committed to his special care and guardianship. But granting that no personal or professional advantage could arise that would afford an adequate compensation for the pecuniary loss referred to, we would still contend that the claims of suffering humanity, and the good of our race, ought to be sufficient to banish all mercenary influences from the ranks of the noble and philanthropic profession to which we belong. And we would add, that the profession would, by taking the initiative in female medical education, regardless of all selfish considerations, re-establish its ancient renown, and win for itself benedictions, more grateful to every pure and generous heart, than all the gold of Ophir.

Assuming, then, that a conviction of the *necessity* of female medical education is all that is necessary to dispel all opposition, on pecuniary grounds; we proceed to notice another adversary which is likely to emerge from our ranks. This is *professional*

pride; and this we regard as a much more formidable enemy than the other, for being more laudable than avarice, it may be made a sort of scape-goat for opposition arising from all kinds of impure and unworthy motives. We consider it more formidable again, because all men have inherited a kind of hereditary *sexual* pride, which revolts at the idea of being placed on a level with a woman; while to this, is superadded, among physicians *professional* pride which constitutes the only real bond of union between them. Therefore it is to be dreaded, because it is laudable—because it is deep-rooted, and because it is universal. But it is only commendable when it prompts to noble deeds, and restrains from every thing which is mean, and derogatory to the character of a learned and liberal profession. Thus far it is legitimate—worthy of all praise; and the greatest safeguard of which we can boast. But when the noble principle of which we are speaking, is perverted from noble ends, and degenerates into that pitiful self-conceit and supercilious scorn which would refuse a female admission into the temple of Medicine when she is proved to be worthy of the honor, and when it is demonstrated that the welfare of the race demands it; it then becomes a damnable* evil, and a disgrace to the profession. Ashamed to acknowledge fraternity with a woman, indeed!—Is not this supremely ridiculous, when we recognize as brothers, grog-shop Thompsonians,† half educated, and wholly uneducated Licentiates of one-man Medical Boards; newspaper puffers; cross-road posters; patent medicine venders, and certifiers and prescribers—*et id omne genus*? For though some of us may deny the “soft impeachment,” and disown our relationship to this swarm, we are all placed on the same platform by the laws, and often by public opinion. Let others indulge this false professional pride, then, if they wish; but as for us, give us well-educated, virtuous, honorable and orthodox females, in preference to the legion of empirics to whom reference has been made.

But we must pass on to another objection that may originate in the medical profession—viz: The difficulty of confining female physicians to their own proper sphere of practice, provided

* No swearing. From “damno,” I condemn.

† Vide. Nashville Med. Journal. Nov.

the extension is allowed for which we have contended. We candidly admit that this is a difficulty of some importance; still we think that it could be obviated, by specifying in the license or diploma, all the diseases which they might be authorized to treat; and by reserving the power to revoke the license or diploma, in case the prescribed limits should be transcended. As a protection to the community, we would suggest also that all the disorders embraced within the range of female practice be distinctly enumerated at the public Commencement, and in the public prints. The necessity of having the female medical classes attached to our regular colleges, will be readily recognized as an important feature in securing the success of the above plan. Without dwelling more on professional objections, which we hope, after all, are more imaginary than real, we will notice, lastly, and very briefly, some of the difficulties that may originate among females themselves. The most prominent of these is the natural timidity of the sex, and the fear of incurring public odium.

Now, it is too true, that the proverbial ignorance and want of refinement, which characterize the midwives of our country, have had a tendency to bring female practitioners into disrepute. And we may add, that the natural aversion of the refined and sensitive females of the South to public display has been fostered by the ultra and radical Woman's Rights movements of some of our Northern states. We would answer these objections by saying, that the reproach of ignorance and coarseness would be removed, by the substitution of refined and educated female physicians, and the only cause of public odium be thus dispelled. While females confined themselves, then, to the honorable and useful sphere conceded to them by the medical profession, and required by the wants of the community, they would have nothing to fear, either direct or incidental; but, on the contrary, they would be animated and encouraged by the fraternal smiles of physicians, and the applause and patronage of a grateful people. The last difficulty to be noticed, and we think the most important, is the social and domestic relations of females. It is generally conceded, that the natural and conventional circumstances by which woman is surrounded, conspire to render home her most appropriate sphere; and it

cannot be denied, that there is a direct antagonism between domestic and public pursuits. This being the case, then, the practice of medicine, by a married woman, would certainly interfere often with the darning of stockings, and all the numberless duties of good housewifery in general. But this difficulty could be obviated by the employment of a housekeeper—an expense which would hardly be felt by a female in extensive practice. Again: those who chose to remain free from matrimonial bonds, would of course avoid the difficulty; and we think that they would be amply compensated, for a life of celibacy, by the increased honors and profits that would accrue to them, in giving their individual attention to the science of medicine. Other difficulties might be met under this head, but we fear that we have already protracted this article to an unwarrantable length; and, besides this, we think it useless—for we believe that all obstacles, whether of a social or domestic nature, will be readily surmounted by females, if they receive sufficient encouragement.

In conclusion, we would add that we have submitted our views on female medical education with some diffidence, and without dogmatism: if we are wrong, we are willing to be convinced of our error; and we therefore solicit the opinions of others on this important subject; and should any one see fit to oppose us, we hope it will be done in a spirit of lenity and toleration, and with a sincere desire for TRUTH.

ARTICLE II.

Chloroform in Delirium Tremens. By E. W. BOOTH, M. D.,
of Carrollville, Miss.

William D., aged about 43, tall and rather spare, a confirmed drunkard, was taken on the 25th inst. with the usual symptoms of the above disease, after a debauch of some two weeks duration. I was called to see him the day after the onset of the attack, and found him laboring under delirium tremens, and suffering all the horrors of the “demon damned.” I put him on the use of morphine, in grain doses, and directed that the medicine should be continued till sleep was induced. I was sum-

moned at 3 o'clock the next morning to see him, as he was said to be growing worse; I found him raving about imaginary beings who were annoying him greatly. He had taken 10 grains of morphine, which appeared to exert very little influence on the disease. I determined to try the internal exhibition of chloroform, and immediately gave him about half a drachm of that article, mixed with a little water, and after the expiration of ten minutes repeated the dose. He, soon after the last dose was administered, fell into a profound apoplectic stupor: his breathing was not oftener than once in a minute; his eyes turned upwards; his pulse about one hundred, full and regular; his respiration was loud and stertorous, and at each inspiration he started as if he had received a powerful shock; his extremities were cold, and he could be aroused by powerful shaking for a few seconds, to relapse again into his former state of deep insensibility. I sat by his bed, watch in hand, counting his respirations, and must say that my feelings were anything but pleasant. I had him aroused every three or four minutes for some time, hoping that this unpleasant state would subside, but finding no improvement, I then ordered a quantity of water to be drawn from a well, and poured it on his head, with occasional intermissions, for several hours. I also gave him an emetic of mustard and ipecac, which operated well; and had his legs enveloped in sinapisms. He slept profoundly during the application of the water, and seemed to be almost unconscious of the operation of the emetic.

After treating the case as above related for several hours, he gradually improved till he became quite conscious, and the mental hallucinations had left him. Without further treatment, except camphor and whiskey, he slept soundly the next night, and in the morning was fairly convalescent. He progressed favorably, and is now well.

[The above case is quite interesting, as illustrating the influence of chloroform upon a nervous system affected with mania a potù and insensible to the action of large doses of morphine. Cases of mania a potù successfully treated by the internal administration of chloroform have been repeatedly reported during the last year or two, but we do not recollect any in which the

chloroform has so manifestly brought the system under the influence of the previously taken narcotic. In the present instance it is evident that the alarming condition of the patient, after taking the chloroform, was attributable to narcosis induced by bringing the system in such a state as to take cognizance, if we may use the expression, of the anodyne to which it was before insensible. It is well known that huge quantities of opium may be taken with almost impunity by those affected with delirium tremens—but it would seem from the example under consideration, that it is not altogether safe to follow these large doses by the use of an agent which so promptly annihilates this tolerance of narcotics. It is singular that an article which so effectually blunts the nervous sensibilities as chloroform, should be at the same time possessed of the property of making the system amenable to the impressions of opiates which it did not before seem to feel.

The facts recall to mind a case of tetanus in which the patient took a grain of morphine every hour during a whole day, and was at the same time made to inhale chloroform very freely. He died evidently narcotized.—EDITOR S. M. & S. J.]

ARTICLE III.

Mammary Abscess, treated with Iodide of Potassium. By J. Y. CARITHERS, of Hendricksville, Ala.

Mrs. S., on the fifth day after being delivered of her second child, complained of pain in her left breast, which suppurated, in despite of the efforts made to prevent it. The abscess was opened and a large quantity of pus discharged; but this gave relief only for a short time, after which other portions of the gland became indurated and proceeded to suppuration, requiring to be punctured. The usual antiphlogistic treatment was tried with only partial relief, when the following treatment was adopted: Three grains of iodide of potassium to be taken in solution morning and night, and to use as a local application the ung. iodini; her diet to consist of nothing but rice. In a few days relief was evident. This treatment was continued for twenty days, when all signs of soreness disappeared. The lady is now suckling her child with no inconvenience, four months having elapsed since the accident.

Letters upon Syphilis. Addressed to the Editor of L'Union Médicale, by M. PH. RICORD. Translated from the French, by W. P. LATTIMORE, M. D.

TWENTY-THIRD LETTER.

[Continued from Vol. ix, Page 672.]

My dear Friend—I promised to call your attention to-day to the cauterization of chancre.

This remedial measure, which I have so ardently sought to maintain in therapeutics, has not yet been generally adopted. It has even been expressly condemned by some practitioners; and I am sorry to add that a very unfavorable opinion of it was given by the Academy of Medicine, before I had the honor of being a member of that honorable body.

You will recollect that one of the members of this learned society treated cauterization with so little favor as to disdainfully return the remedy to the *corporal's guard*, with whom he said, it ought ever to have remained. The author of this apostrophe, in his character of military surgeon, should, at least, have informed us as to the effect of the measure in the corporal's guard; for it is important to be satisfied with respect to its efficaciousness. If the means be good, the source whence it originated is a matter of indifference; and we make this remark without reflecting in any degree whatever on the corporal's guard.

The cauterization of chancre did not originate with me; but I am a firm supporter of its value as a remedial measure; and in this capacity, you know, my opponents have not failed to attack me. It is, therefore, my purpose to defend the principles which I advocate.

Let us first invoke analogy, in illustration of the question.

We cauterize the bites of the viper and of the mad dog, as well as anatomical wounds, anthrax, malignant pustule, and often with success, when our services are timely invoked. No one would be inattentive to a puncture made with an instrument soiled with the pus of farcy or glanders. The surgeon who would fail to cauterize in these cases would be highly culpable. And yet the very men whose hand in all such cases is armed with iron and with fire, pause when the disease happens to be chancre! Why? Because they either cease to reason, or cease to reason with effect.

Let us prove our statement.

Does chancre, whatever may be its variety, always produce accidents at a distance? Does it always infect the economy?

With respect to this question, you know there are three parties, with distinct opinions:—

One party, which appears to believe in nothing that is not

incredible—a party which is still numerous—is convinced that chancre is not a primitive accident, in the strict acceptation of the term; but that it simply constitutes the first manifestation of the general infection, or, as I have already stated, a primitive secondary, or a secondary primitive accident.

Another party, which already begins to have a glimpse of the truth—and the school of Hunter must be ranged in this category—admit chancre to be at first a local accident; but thinks that it must inevitably infect the economy unless specific medication is employed in time.

Finally, the most rational party—that which has observation, experience and the evidence of facts on its side—affirms that chancre is always, *at the commencement*, a local affection which art can arrest, and which even without the intervention of art, may remain local in certain well-determined circumstances, whatever may be the extent of the chancre with respect to its surface or depth. The last observers maintain—and this is one of the consoling points of the doctrines which I profess—that, even when the chancre is about to infect the economy, this result does not take place instantaneously, but only after the lapse of an interval sufficiently complete to enable us to destroy it.

I say nothing with respect to the physiologists whom I have elsewhere opposed; and who do not admit a general infection, either before or during or after exposure to the cause. This doctrine is now duly interred; and, what is very singular, some of its advocates have since become more virulent than myself. I could cite instances of some who, from unbelievers that they were in regard to the virulence of the disease, have ended by believing in everything, even in homœopathy.

I do not rest here to enter upon the discussion of when and how buboes are produced: of the time at which the constitutional infection occurs and of its mechanism, we will speak hereafter. I only wish to recall the reasons which have caused the rejection of cauterization as an abortive or curative method of treatment of chancre, together with those which have led me to adopt it.

What do we wish to accomplish by cauterizing chancres?

1. To prevent constitutional infection.
2. To hinder the production of buboes.
3. To retard the progress of the primitive accident, which occasions greater or less deformity, and sometimes the loss of important organs.
4. Finally, to destroy a focus of contagion.

Those who believe that the constitutional infection always precedes chancre, not only state that it is useless to cauterize

the accident, since the disease which we seek to prevent already exists; but they further add, that it would be dangerous so to do, inasmuch as the chancre is an *emunctory* by which the economy frees itself from the virus. If this opinion were well founded, it would follow that it is not only imprudent to destroy the chancre, but that, on the contrary, it is necessary to preserve and extend it, in order to furnish the virus with numerous and easy doors of exit. This is a logical sequence. But you know, my dear friend, that these logicians do not act in this way; and we must admit that it is very fortunate for their patients that their practice is inconsistent with their professions.

The difference is not great between this school and that which, as I have already told you, believes that chancre, at first local, inevitably produces general infection. The disciples of this school tell us that the activity of the infection is proportional to the number, the extent, and the duration of the primitive accidents. But, alas! after the statement of these fine doctrines, there comes a contrary element, which leads to the direst practical nonsense. In fact, what do they prescribe? Listen to them, and they tell you: Avoid destroying the chancre; do not seek its rapid cure, for thus you throw back the virus into the economy, inclose the wolf in the sheepfold, and finally render the infection more active.

Do you not admire the manner in which all this is deduced and linked together!

We throw back, we repercuss the virus by drying up the virulent source! The wolf in the sheepfold is so much the more dangerous since it is dead! The infection becomes more active when we have destroyed the elements which must increase it!

My intelligence cannot scale the sublime heights of this reasoning: are you more fortunate than I, my dear friend?

This is not all; the partisans of this doctrine further say to you: Respect the chancre, for it tells the actual condition of the patient, and also what will occur later.

They add:

Do not cure the primitive ulcer too soon, for it serves you as a guide in the general treatment, and forces the patient to follow this.

What do you now think of these precepts? What is the satisfaction, in fact, from knowing each day, beyond a doubt, that your patient really has a chancre, and from being assured that it was this which determined the other accidents which you have subsequently to combat?

The primitive accident, they say, serves to direct your de-

puratory treatment; but you, as well as I, know that not one of those professing these doctrines suspends the general treatment as soon as the chancre is cured, even by their method. Their treatment is nearly the same in all cases: it is a fixed dose of mercury administered during a given time, whatever be the nature of the primitive accident, whatever may have been its duration. And then what do you say of allowing a chancre to progress in such a way as to amputate the penis, for the sake of inducing the patient to follow the treatment? this is truly admirable, and one could not be more prudent.

Cauterization has been reproached with being a frequent cause of bubo; and in support of this assertion the meagre statistics of Bell have been cited, statistics which a single visit to the Venereal Hospital of Paris would reduce to naught.

The law, which you can verify when you like, is this: there are more buboes without a previous cauterization of the chancres than otherwise. Cauterization does not always prevent the production of buboes; it never determines specific ones; it may often prevent them.

It may often prevent the constitutional infection, it never favors it.

I am well aware that many observations have been cited in support of the heresy which I combat; but they are all of about the same weight as the observation somewhere to be found in Van Swieten. In this case the patient had had a chancre *for more than a month, and, after a cauterization, was affected with secondary ulcerations of the throat, as a consequence of the pretended repercussion!* Oh, pox! when wilt thou be understood?

M. Lagneau, who is opposed to cauterization, because, among other inconveniences, *it destroys the primitive accident too quickly*, cites against it an instance in which it had a wonderful result. But, to judge of it the better, let us allow M. Lagneau to speak. Here is his observation:

“In 1807, an officer of high rank, called for a short time to the imperial headquarters at Varsovia, exposed himself to venereal contagion. Shortly afterwards two chancres appeared at the base of the glans. Before appropriate treatment was commenced, the army was unfortunately commanded to march. The patient was unwilling to leave his regiment at a period when everything indicated the occurrence of great events in which he was anxious to participate. Being attached to a cavalry corps of the advanced guard, his duties were exceedingly arduous on account of the extreme severity of the cold. I was therefore unable to resort to the usual treatment in such cases. For many reasons, such as the irregular administra-

tion of the remedies at my disposal, I could not hope to be able to prevent the developement of accidents, when so many powerful causes capable of producing them were in operation. *I yielded then, to the reiterated demands of this officer, and touched his ulcers with the nitrate of silver*, forewarning him however, of what he might expect in the future. *The chancres cicatrized very promptly and the patient finished the campaign without experiencing the slightest inconvenience from them.* Shortly after the battle of Eylau, the army having taken cantonments upon the Pasargo, he informed me, according to agreement, of his condition; and I engaged to prevent, by a methodical treatment, the results of a general infection. He followed my advice, and has not since experienced the slightest venereal symptoms."

After so conclusive an illustration in favor of cauterization, you will not, I trust, expect me to adduce the thousands of similar facts which I have been enabled to collect during the practice of twenty years. This one seems to me sufficient.

In order now to clearly explain to you my views on cauterization you will allow me, in my next letter, to present to your notice some important propositions.—[*N. Y. Med. Times.*]

Chloroform—its External and Internal Uses. By R. L. MADISON, M. D., Petersburg, Va.

The use of this powerful anæsthetic has become widely popular with the medical profession, and richly does it deserve its popularity. Having passed the ordeal of rigid experiment and enlarged experience, it now ranks *first* among those remedies which science, with lavish hand, has kindly furnished for our relief, while millions are ready, with willing lips, to testify to its delightful and lethean influence, and to herald its praises as a mighty boon to suffering humanity. If to afford immunity from pain, to impart relief to agonized human nature, be *one* among many of the glorious objects of the physician's mission upon earth, surely the possession of this remedial agent alone were sufficient to yield the blessings of comparative comfort to half the "ills that flesh is heir to."

It is not my purpose, in the present article, to speak of the anæsthetic virtues of chloroform, because they are too well known and appreciated by the profession to need further commendation or support, but simply, through the medium of your valuable journal, to invite attention more directly to some other uses to which it can be, and has been, applied with the same success, and with equal certainty, as by inhalation.

I allude to its *external* application and *internal* administration in cases of exalted or perverted nervous action, inducing spasm whether *tonic* or *clonic*, as exemplified in traumatic or idiopathic tetanus, delirium tremens, spasmodic colic, &c., &c.

Without further preface I will proceed, by way of illustration, to recite a few cases of recent occurrence, and let them speak for themselves.

CASE I. A little negro about two years of age, belonging to Mr. R——, of Dinwiddie county, was bitten on the *heel* whilst asleep, by a rat. This attracted very little attention until the afternoon of the *third* or *fourth* day, when the child was seized with a violent convulsion, followed, after an interval of an hour, by another of still greater violence. Being on a visit to the neighboring house, I was called in before the termination of the second spasm. He had been immersed in warm water, and an emetic administered, which relieved his stomach of some well-digested food. On enquiry whether he had received any external injury, his mother replied, "nothing except the bite of a rat." An examination of the heel revealed a punctured wound, swollen and tender to the touch, the inflammation extending some distance up the limb. The constitutional disturbance, however, was not sufficiently great to develop much fever. I expressed my fears to Mr. R——, of the tetanic nature of the convulsions, and explained the danger to be apprehended from them.

Treatment.—Hot bath as often as the spasms should recur. Ley poultice to the heel, to be changed every hour or two, and the following liniment: ℞. Chloroform and ol. olivæ, aa ʒij; spts. ammoniæ fort. ʒss. M. To be rubbed well on the whole length of the spine every half hour until bedtime. Its use to be resumed during the night, if necessary.

October 4, 10 o'clock A. M.—One spasm had occurred, accompanied by violent rigidity of the muscles of the forearm and those of mastication, soon after the rubbing commenced. There were occasional nervous twitchings during the night, but otherwise slept composedly. Has no fever; pain and inflammation in the heel diminished. Continued the poultice, with spinal frictions every two hours during the day, and prescribed: ℞. Hyd. chlorid. mit., grs. iv.; pulv. ipecac., gr. i. M.

October 5, 10½ A. M.—Has had no more spasms; medicine acted once; appears quite lively. Ordered the liniment to be continued *three* times a day. The punctured wound rapidly healed, and the child has since remained in excellent health.

CASE II. J. C., a young man, æt. 28. Sanguine tempera-

ment and plethoric habit ; had been sick with bilious colic for three or four days, and was convalescing ; was suddenly seized (Oct. 15, 1 o'clock P. M.) with a severe convulsion of delirium tremens consequent upon excesses of the previous week and the antiphlogistic treatment resorted to in his case. The convulsion left him in a partially comatose condition, with some heat about the head ; pulse 120, small and irritable. Twenty minutes afterwards he had another spasm. I did not like to employ the usual remedies in this case, not only on account of the pre-existing biliary derangement, but also because of the cephalic symptoms. I therefore determined to use chloroform externally. With this view a liniment was ordered, composed of equal parts of chloroform and sweet oil, which was directed to be rubbed well upon the whole length of the spine every half hour. About 3 o'clock Mr. C. had another spasm of short duration. After this his pulse gradually diminished in frequency, and increased in volume and softness. From 5 to 6 o'clock had a refreshing nap, and awoke with a clear intellect.

Oct. 16, 9 o'clock A. M.—Slept but little ; is now very nervous and restless ; mind inclined to wander ; muscles tremulous. Ordered an aperient of calomel and bicarbonate of soda, with a continuation of the spinal frictions, which by evening entirely allayed all the abnormal symptoms.

Oct. 17.—Dismissed as not requiring further medical aid. No anodynes were given internally.

These cases are interesting as illustrative of the sedative and anodyne effects of chloroform where endemically applied, unattended with any possible dangerous results, and consequently obnoxious to no objections. These effects are further proven by the benefit derivable from the external use of chloroform in cases of simple neuralgia, muscular rheumatism, cramp, &c., in many instances relief being immediate.

CASE III. J. T., æt. 25. Laboring under mania a potu.

Oct. 23.—Delirium constant, though of a low and muttering character ; morbidly timid ; pulse feeble and rapid ; great enlargement of the liver, which is tender on pressure and percussion ; tongue red and dry ; complete anorexia and insomnia ; extremities cold. He has been intemperate for years.

Treatment.—Sinapisms to the right hypochondrium and inferior extremities, and the following pill: ℞. Quinæ sulph., g. camphoræ aa., grs. xii ; hydr. chlorid. mit., grs. x ; pulv. opii, grs. xij. M. Syp. qs. F. in pil. No. xxiv. S. Two every two hours until bedtime.

Oct. 24, 9 A. M.—A little better. Had rise of fever towards evening, with active delirium nearly all night. Has still con-

siderable thirst, and complains much of his liver. Tongue covered with a dark fur, but moister than yesterday. Pulse 98 and feeble. Directed the pills to be continued once every three hours until 4 o'clock P. M., when he took the following draught: ℞. Quinæ sulph., grs. xv.; aq. camph., ℥iss.; acidi sulph. aromat., gtt. iii; syp., ℥ss.; elix. opii, ℥iss. M.

Oct. 25, 9½ A. M.—Rested something better; delirium less active during the night; mind clear at intervals; gums a little tender; skin moist; pulse about 90, and more developed; anorexia and jactitation continue.

I ordered an ounce of castor oil; and at 5 o'clock P. M. he took ℞. Chloroform, ℥i.; aq. camph., ℥iss. M.

Oct. 25, 10 A. M.—Says he feels a great deal better; slept well for the first time in a week; feels hungry; pulse full and soft; skin and tongue moist; the oil has acted twice.

After this he remained calm and rational, but I doubt whether his health will ever be fully restored, his system being completely shattered by long continued dissipation.

CASE IV. R. H. W., æt. about 30. Has had several attacks of arthritic rheumatism within the last eighteen months. Is suffering now (Oct. 26) from rheumatism attacking the muscular coat of the small intestines. Complains of great and incessant pain, constipation, considerable fever, furred tongue, loss of appetite, &c.

Treatment.—Hot emolient cataplasms to the abdomen; v. s. ℥xvi.; and ℞. Hyd. chlorid. mit., grs. x.; morphinæ muriat, gr. ½; syp. qs. F. in pil. No. i.

October 27, 9 A. M.—No better; did not sleep at all; pain at times intense, aggravated by large collections of wind in the ascending and transverse colon; urine very high colored; pulse jerking. Ordered a stimulating enema, continued the poultices to the abdomen, and gave: ℞. Ammoninæ phosphat. ℥iij.; aq. font. ℥v.; syp. aurant., cost. spts. ammonia aromat., aa. ℥ss. M. S. Tablespoonful every three hours in half a glass of water.

October 28, 10 A. M.—Slept very little last night; pain still continues; enema acted well; no appetite, yet the tongue is clean and moist, the urine clear, and the pulse nearly natural. The continued character of the pain and the inability to sleep induced me to prescribe chloroform internally. Accordingly, at 7 P. M. he took ℞. Chloroform, ℥ij.; aq. camph., ℥ij. M. This draught produced sound and refreshing sleep for four or five hours, after which he was wakeful but free from pain. This morning (October 29) says he feels almost entirely well; convalescence rapid.

There are very many cases in which it is desirable to administer an anodyne, and equally desirable not to produce constipation, or to suspend the peristaltic action of the intestines. In such cases chloroform, in my experience, is an admirable remedy, not only calming the nervous system and promptly inducing sleep, but creating no inertia of the digestive organs, and causing no vascular determination to the brain. There are persons also, in every community, who cannot take opium, or any of its preparations. These, I should think, might take chloroform with impunity, although I have had no opportunity as yet for testing the experiment.—[*Stethoscope and Virginia Med. Gaz.*

Gelseminum Sempervirens, or Yellow Jessamine. By H. M. NASH, M. D., Norfolk, Va.

This plant, no part of which is officinal in the United States Pharmacopœia, the *Bignonia Sempervirens* of Linnæus, and the *Gelseminum Nitidum* of Michaux and Puroh, belongs to Sex. Syst. Pentandria Digynia; Nat. Ord. Apocynaceæ. It has a smooth twining glabrous stem, with leaves dark green above, paler beneath, entire lanceolate, perennial and apposite, and short petioles, bearing flowers in March and April. It flourishes throughout the Southern states, where its value, in the treatment of the various fevers incident to the country and climate, has so recently been discovered, and introduced to the notice of the medical profession; and nowhere is it produced more abundantly than in the forests and by the road sides of our own immediate vicinity, making known its presence in flowering season, at considerable distances, by its most fragrant, but rather narcotic odor.

The tincture of the root is the preparation used in experiments. It has a characteristic odor, and may be given in doses, for adults, of from ten to fifty drops, in a little water; and even one to two teaspoonsful have been administered, as it varies in strength, there being no fixed standard. It will be found sufficient for all practical purposes, though the whole plant, doubtless, possesses valuable medicinal virtues.

Jessamine appears to be *narcotic*, *antispasmodic* and *sedative*, seemingly spending its influence chiefly upon the sensory ganglia, spinal cord, and voluntary muscles, leaving unaffected the intellectual faculties. It reduces the circulation, and promotes perspiration and the secretions generally, without causing nausea, vomiting or purging, and has been given in every stage of febrile disorder.

Its *physiological effects* are dimness of vision, doublesighted-

ness, inability to open the eyelids, stiffness of the jaws, general muscular debility, and complete prostration. These soon pass off, however, upon withholding its use, leaving the patient comfortable and refreshed. I have used the article in every case of idiopathic fever that has fallen under my treatment within the last six months, with perfect impunity, and with the most desirable results, age or sex not effecting its exhibition; but not having relied solely upon it in all cases, especially in those of higher grade, I am not prepared to pronounce it, as others farther South have perhaps too rashly done, a *specific* (a term rather to be avoided in medicine) in the above diseases.

Accompanied by a gentle purgative, it has been my custom to give it in appropriate doses, repeated at intervals of one or two hours, until some of its prominent physiological effects are produced, as dimness of vision, &c., when it may be suspended, its equalizing and quieting powers becoming apparent. In mild cases no other treatment is required, but generally from one to ten grains of quinine, according to the severity of the symptoms, should follow each dose of the jessamine, thereby effectually preventing a relapse, in a short time, from want of tone, resulting from the relaxing effects of the remedy.

In two instances, I have, by the above course, succeeded in relieving patients within twenty-four hours, whose cases presented all the primary symptoms of veritable *typhoid fever*, and have seen a full dose of the tincture, with five grains of quinine added, stop almost immediately a severe chill, no fever supervening at all.

In the case of a child two years old, under my charge, complete prostration, with seeming paralysis of the muscles of deglutition, induced by the carelessness of the nurse in giving an over dose, was relieved by repeated injections of a strong solution of quinine, in a very short time. This would prove effectual in any such case accidentally happening, but with cautious use no fears may be entertained.

In the course of experiment I have used it in several other affections, as rheumatism, hæmoptysis, &c., with evident advantage, though not sufficient to predicate its success in such cases.

The medicinal actions and uses of jessamine deserve fully to be investigated by all medical men. Of its future extensive use in the South, where it abounds (a provision not to be looked upon as purely accidental) as a febrifuge, I have little doubt; and if its reputation becomes not what I would venture to predict, a *coefficient* with *quinine* in treatment of the diseases indicated, it is that my enthusiasm in its favor obscures my humble judgment.—[*Ibid.*

On the Composition of Human Milk in Health and Disease.

By MM. VERNOIS and A. BECQUEREL.

[The results of these investigations are important in the inquiry as to how far the milk in different conditions may affect the chemical structure of the teeth of children and thus modify their susceptibility to disease. It will be seen that they invalidate some of the inferences built upon former analyses, but although affording more correct data, they at the same time suggest the uncertainty of chemical analyses in the present state of the art, as bases for positive conclusions.]

"Looking at the contradictory reports of various analyses of milk, MM. Vernois and A. Becquerel have entered into an elaborate investigation of the entire subject. They have especially chosen 89 uniform and complete analyses to deduce certain deductions from. The following is their account of the composition of this fluid :

	In Health.	In Acute Disease.	In Chron. Dis.
Water,	889,08	884,91	885,50
Solid parts,	110,92	115,09	114,50
Sugar,	43,64	33,10	43,37
Caseum and extractive	39,24	50,40	37,66
Butter,	26,66	29,86	32,57
Salts (by incineration)	1,38	1,73	1,50
Density,	1032,67	1031,20	1031,47

"There are more solid parts in the milk of nurses aged from 15 to 20, than in those from 35 to 40. The quantity of butter is notably increased during the colostral period. Gestation does not produce alteration in the composition of the milk at first, but at a later period it increases the proportion of the solid parts. Menstruation diminishes the density, the weight of the water and of the sugar. It increases the weight of the solid portions, especially the caseum. Insufficient aliment renders the milk too watery, the effect falling especially on the butter and caseum. An excess of butter and caseum always accompanies an ill state of health of the nursling. There are certain women whose milk, independently of any special cause, always contains an excess of butter or caseum.

"In both acute and chronic disease, the water diminishes and the solid parts increase; but there the analogy between these two classes ceases. In acute disease, the sugar considerably diminishes while the three other elements are increased, the caseum alone nearly repairing what is lost by the sugar. In chronic disease, the butter and salts are increased, the sugar remains stationary, and the caseum diminishes. Thus in acute diseases, we have loss on a respiratory element, and excess in

a nutritive element; and in the chronic, loss on the nutritive element, and increase of the respiratory element. In phthisis, without diarrhœa or emaciation, there is little sensible modification; but these being present, there is considerable diminution in the weight of butter. In syphilis the density is extraordinarily raised; the butter diminishes, and the salts disproportionately increase.—[*Gazette Medicale. Southern Journal of Med. and Physical Sciences.*]

On some of the Signs of Incipient Pulmonary Phthisis. By
M. BOURDON.

It is known with what difficulty the presence of pulmonary tubercles is diagnosticated when the disease is in its incipency, and how insufficient the stethoscopic signs are. The latter may be wanting when the lungs contain a large quantity of tubercles; they may exist when the lungs contain none; and they may be masked by different sounds. The general symptoms are not a sure means of detecting the disease; a simple catarrh may be attended with very grave symptoms, while a true phthisis may affect the general system very slightly. It is at the commencement of the disease that the diagnosis is most important, because this is the only time that there is a chance of treating it with any success. M. Bourdon has sought to elucidate this obscure point. Attracted for a long time by the frequency of certain symptoms in phthisical patients, he has studied them with care, in order to establish their value as signs. These symptoms are arranged under many heads, according to the organs in which they show themselves:— 1. gastric symptoms: 2. hepatic symptoms; 3. thoracic pain. The gastric symptoms are not to be confounded with the morbid phenomena observed in almost all diseases. Those which coincide with the incipency of phthisis are nausea, vomitings, epigastric pains, dyspepsia. You must not wait to find these symptoms in every case; nevertheless, they are extremely frequent, since M. Bourdon found them in more than two-thirds of his subjects. Some phthisical patients suffer from one of these symptoms; others, on the contrary, have them all combined. Nausea and vomiting are most common; and it is generally after the cough that they exhibit themselves. It must be observed, however, that their frequency or intensity are not at all proportioned to the cough; they occur when the stomach is empty as well as after a repast. Generally the vomitings consist of mucous matter, rarely of bile. Still, while they show themselves with a large number of the tuberculous, they do so in a positive manner with very few. Another very

common symptom is the epigastric pain. In the largest number of cases, it is accompanied with nausea and vomiting; nevertheless it occurs alone sometimes. With the largest number of patients it is only manifested upon pressure, or is so slight as not to be noticed by the patient until their attention is attracted to it; in a smaller number of patients it manifests itself spontaneously. Although it shows itself both before and after eating, it is yet most commonly observed after the ingestion of food. Long continued dyspepsia, without nausea or vomiting, is frequently observed. Frequently the gastric symptoms precede the thoracic; but often also they show themselves at the same time or subsequently. Do they imply a lesion of the stomach? is a question which has occupied the author. Sometimes he found the stomach healthy; most frequently it presented some lesion, which was oftenest a papillated state of the mucous membrane. The author thinks the pressure of the tumefied bronchial glands upon the pneumo-gastric might contribute to the disorders of the stomach.

2. The liver sometimes presents remarkable peculiarities. In half the patients examined by M. Bourdon there was an increase of volume, frequently attended with pain. The increase of volume seemed to be particularly observable in the right lobe; the consistence of the organ seeming to undergo no change. The changes of sensibility are less frequent than the changes of volume. Spontaneous pains are rare; they only manifest themselves under pressure, or under some sudden and straining movement. In some rare cases this change of sensibility is observed without change of volume. As to the change the liver undergoes, the autopsies prove that in more than half of the cases it is due to fatty degeneration more or less advanced. The bile is generally of greater density and more highly colored.

3. The largest number of phthisical patients suffer from pain between the shoulders and in the sides of the chest: but, besides these spontaneous pains, there are others to which M. Bourdon calls the attention of physicians, and which are only recognized through the medium of percussion. The points where these pains are discovered are numerous, but they are most often seated below the clavicles, and only on the side affected with tubercles. If both sides are affected the pain is on the side most affected. As to the cause of this pain, M. Bourdon, like M. Beau, is inclined to ascribe it to intercostal neuralgia.

The conclusions drawn by M. Bourdon from his researches are as follows: When prolonged dyspepsia, nausea, and vomitings are observed, without any assignable cause; when the

liver is abnormally developed, without there being hepatitis or disease of the heart; when these phenomena are exhibited independent of any other affection, or in the course of chlorosis, or after measles or typhoid fever; the physician should turn his attention to tuberculosis, examine the patient with great care, and even when there is doubt of the reality of the pulmonary affection, he ought to act as if convinced, or at least he should take his precautions.—[*Archives Gén. Virginia Med. and Surg. Journal.*

A Case of Acute Rheumatism treated with full doses of Quinine.
By W. M. HOUSTON, M. D., of Urbana, Ohio.

On Wednesday afternoon I was called to visit Miss G——, eight miles north-east of this place. On my arrival I obtained the following history of the case. The patient (sixteen years of age) was attacked on the previous Saturday with acute rheumatism of a very severe character. On Sunday, Dr. Johnson was called in, and for three days applied the usual remedies for rheumatism, viz: Bleeding, mercurial purgatives, opium, tartar emetic and colchicum, without any good effect; in fact the patient grew worse from day to day, until I first saw her, when she was unable to move hand or foot; as the least motion caused extreme suffering. Her pulse was one hundred, full and strong; joints somewhat swollen and slightly red.

What course to pursue with a prospect of affording relief, after the failure of nearly all the anti-rheumatic remedies, was a question in regard to which physicians might well be excused for differing in their opinions. Dr. J. was in favor of further venesection, and, taking the pulse as a guide, this measure seemed not only warranted but positively indicated. As, however, she had already been bled twice, I was fearful metastasis might result from the further loss of blood. I suggested the following treatment, (which, although seemingly empirical, was acceded to by Dr. J., as the usual remedies had most signally failed,) viz: 8 grs. quinine, 2 grs. opium, and 2 grs. ipecac, every third hour, unless symptoms of narcotism should supervene; chloroform liniment to be applied to the joints; lemonade to be drank freely. I agreed to see the patient the next day, but being called in the night to attend an obstetrical case (eight miles from town, in another direction), which proved to be a very tedious labor, I did not see her again until Saturday morning, when I learned that in the course of the first twelve hours she took 40 grs. quinine, 10 grs. opium, and 10 grs. ipecac; used 1 oz. of liniment to the joints, but did not use the lemons. She rested well through the night, and in the

morning felt greatly relieved. During Thursday and Friday she took about 20 grs. more of quinine, and enough colchicum to open the bowels. When I saw her on Saturday morning she was able to walk about the room—was entirely free from pain; pulse reduced to 70, of moderate force, and with the exception of a slight stiffness of the joints there was no evidence that the patient had ever had an attack of rheumatism.

[*Western Lancet.*

On Intermitting Diabetes, and on the Diabetes of Old Age.

By H. B. JONES, F.R.S., Physician to St. George's Hospital.

The author's object in this communication was to point out some phenomena connected with diabetes, which he had not found mentioned by other writers. Preliminary to the record of the cases, the author offered some observations on the incorrect results obtained by calculating the amount of sugar present in the urine from the specific gravity. If diabetic urines were solutions of nothing but sugar in distilled water, the tables by Dr. Henry, and the amount of sugar calculated from the specific gravity, would give all the information required; but a multitude of other substances were present besides sugar, each of which was variable, and each of which might cause the specific gravity to vary, whilst the quantity of sugar might remain constant. To be accurate, therefore, the amount of sugar should always be determined by direct experiment, and never calculated from the specific gravity. Results were given, exhibiting the specific gravity, the amount of sugar calculated from solid apparatus, and the absolute amount of sugar obtained by direct analysis. On the subject of intermitting diabetes, the author observed that there could be but little doubt that our knowledge of the nature of this disorder might be extended by means of accurate determination of the varieties in the amount of sugar in the urine passed at different periods of the day, and under different circumstances. His object in relation to this form of the disease was to record some cases in which, either from the medical treatment, or the regimen, or the natural course of the complaint, the variation in the amount of sugar was not from much to little, but from highly saccharine urine to total absence of sugar. The state of the urine a few hours after the sugar had disappeared, and an hour or two before it reappeared, was most especially worthy of attention, inasmuch as it might lead to a truer knowledge of the state of the system which preceded the commencement of diabetes. In intermitting diabetes the disease might be seen beginning and ending, and the explanation of

the state of the urine which preceded the appearance of the sugar and followed its disappearance, must be included in the true theory of diabetes. Moreover, a better knowledge of the antecedent phenomena might enable us to ward off the disease, if not to treat it with more success. The records of seven cases of the intermitting form of the disease were given, and very minute particulars in several, illustrated the amount of sugar present in the urine at stated intervals in the twenty-four hours, as well as the influence of particular forms of diet on the proportion of sugar excreted. In these cases the state of the urine just after the sugar had disappeared was worthy of attention. A remarkable excess of urea was constantly found before and after the sugar disappeared; and although this might be attributed to the animal diet, yet the occurrence of free uric acid and oxalate of lime in the urine, pointed most clearly to a state of indigestion which was every day to be found without any sugar appearing in the urine. The author offered the following theoretical contrast between ordinary and saccharine indigestion: Ordinary indigestion showed itself in a want of action on the sugar and starch taken as food, in consequence of which excessive acidity was produced—that is, the changes in the non-nitrogenous food were imperfect. Imperfect changes also occurred in the nitrogenous food; this was made evident by an excess of urates and urea in the urine, and perhaps also by the formation of oxalate of lime. In diabetic indigestion the effect might be traced also on the two great classes of food. At first from the non-nitrogenous food sugar was formed instead of acid. Ultimately, if not simultaneously, sometimes the arrest of healthy changes extended to the albuminous food, and, instead of an excess of urates and urea, other products were formed, one of which was sugar. It was possible that some of these products might be found in the urine. Possibly benzoic acid, which is present in some cases of diabetes, in variable quantities, might be one of the new products. Whether this theory were true or not, it was of practical importance to remark the tendency to acidity in these cases of intermitting diabetes. In such cases, animal diet alone, or with alkalies, might stop the formation of sugar. It followed also, that, when oxalate of lime, uric acid, and excess of urea, were found in the urine, it was probable that the diabetes might be temporarily, if not permanently, removed. The occurrence or absence of these substances in the urine might lead to the recognition of the stage of the disease, and they might thus guide us in our prognosis and treatment. The second part of the communication related to the frequency of diabetes in old age. Reference is made to a paper, by M. Dechambre, on this

subject, who concluded, from observations made on the urine of old people at the Salpetriere, that sugar was habitually present in the urine of old people. The author gave the particulars of nine cases of diabetes in elderly people, and thought that the occurrence of this affection at the latter periods of life pointed also to the theory of diabetes as an indigestion resulting from an arrest of healthy changes in the food. The cases mentioned in this communication were, in the opinion of the author opposed to the view of diabetes depending upon an affection of the nerves, or of the liver; and his daily observation led him rather to the view taken by Dr. Prout, that diabetes was an indigestion, and that it first affected the non-nitrogenous, and afterwards the nitrogenous, constituents of our food. As regarded treatment, whatever was beneficial for excessive acidity, was found equally serviceable in diabetes. Alkalies were used in all the cases with benefit. Small meals, free from sugar and acid, and the substances that could give rise to sugar and acids, constituted the best diet. He found, also, that vegetable acids and alkalies were occasionally useful. In a footnote, the author mentioned some experiments he had not yet published, determining the quantity of sugar in several kinds of beer and wine. Porter contained from 27 to 57 grains of sugar in each ounce of liquid; ale from 43 to 50 grains; beer 25 to 40 grains; port-wine 8.5 to 11 grains; sherry 2 to 4.7 grains; claret none. The absence of all sugar, and the presence of a little alcohol, caused claret to taste highly acid, while the quantity absolutely present was not more, sometimes less, than in other wines which have no acid taste, as, for example, most port wine.—[*Med. Times and Gazette*.

On Spasmodic Asthma. By Professor EBEN WATSON, M. D.

We find the following conclusions appended to a paper by Dr. Watson, in the April number of the "Glasgow Medical Journal:"

"I shall now recapitulate in brief terms the chief propositions sought to be established in the preceding pages.

"1st. That very many cases of bronchial asthma have their origin in laryngeal disease; that some remain for a variable period, as a spasmodic affection of the glottidean muscles, and that in all cases of the disease in question, although the bronchi have long been affected, the chief contraction still occurs in the larynx.

"2. That if this contraction at the glottis be in any way overcome, that of the smaller bronchi either simultaneously or speedily relaxes.

"3d. That the usual remedies employed in cases of spasmodic asthma are either such as are directed against the complications of the disease, and not against its proximate cause, or such as have been found in practice incapable of accomplishing its removal. The latter are therefore useless, and the former unfit to fulfil the indication referred to above.

"4th. But this indication may be answered more or less perfectly in different cases, by the application of a solution of caustic of moderate strength (gr. xv., or one scruple to one ounce) to the glottis, which is the organ chiefly affected.

"5th. Cardiac asthma, as it is called, does not usually depend proximately on simple spasmodic contraction of the bronchial tubes, but rather on vesicular emphysema. Cases of this kind are therefore unfit for topical treatment.

"6th., and lastly, electricity passed in gentle currents, as much as possible along the bronchial tubes, may be found to diminish their contractility; and repeated small doses of strychnia may likewise co-operate with the other means of treatment, probably by withdrawing the nervous energy to other parts, at a distance from the affected air tubes."—[*N. Y. Med. Jour.*

Case of Suffocation. Reported by G. R. B. HORNER, M. D., Surgeon U. S. Navy.

Sunday, June 10th, in the morning, Mary Berry, a girl about seven years old, residing in the south-eastern part of Philadelphia, put the top of a broken glass decanter-stopper into her mouth. The top was globular, and about two inches around. From some unknown cause she took a long inspiration, and, as she says, sucked it down her throat. It lodged at the entrance of the œsophagus, and so obstructed that or the glottis, that she immediately became strangled. Her mother and others about her in vain endeavored to relieve her; an apothecary was sent for, and could not do so. Luckily, Mr. Isaac Hugg, an ingenious, long, slender-fingered tailor, living opposite, in Second-street, heard the alarm, ran to the poor child's relief, and understanding what had happened, thrust his fingers into her throat, but at first could not feel the stopper. He tried a second time: after raising her feet upwards, her head downwards, and over his knees, and after getting a finger under a projecting point of the broken surface of the stopper, succeeded in throwing it upon the floor. By this time the child was insensible, but on the introduction of his fingers, gagged, assisted his efforts, and was resuscitated, though pronounced dead by the druggist, deceived perhaps by the lividness of her face, and other fatal signs. Of the above facts I was informed while

passing her residence at the time of the accident, and by subsequent enquiry.—[*Medical Examiner*.]

Of Acute Peritonitis and its Diagnosis in Infants at the Breast.

By Dr. ISADORE HENRIETT, Physician to the Foundling Hospital of Brussels.

The great frequency of affections of the system of serous membranes in infants at the breast, is a subject worthy of the deepest consideration of those who devote special attention to the study and treatment of the diseases of children. The peritoneum, the pericardium, the pleura, the meninges, far more frequently than is believed, present pathological alterations which prove the peculiar tendency of these exhalent organs to become affected in children of early years. With the exception of meningitis, the symptomatologic manifestations of which are usually striking, these diseases are diagnosed with difficulty. We do not mean to say that pleurisy, pericarditis, and inflammation of the peritoneum can only be recognized after death, but that the functional disturbances which they create are frequently so slight as to require on the part of the physician the greatest attention.

We shall attempt to extricate the latter disease from the obscurities which surround it, by coördinating the elements of its diagnosis which have been furnished by authors, and describing what we have observed ourselves. We shall establish, finally, its differential diagnosis from entero-colitis, a frequent disease of infancy which may be readily confounded with peritonitis.

In the first place, if we seek for the cause of idiopathic peritonitis in young children we are quickly at a loss. Its sudden development is not the least strange peculiarity of this affection. We know that in the adult spontaneous peritonitis is rarely observed, and that it is ordinarily encountered only in those peculiar conditions which are produced by the puerperal state, by traumatic lesions, and by perforations of the digestive tube. Its etiology, then, is most uncertain. In the two cases which have occurred in our service, without having recourse to suppositions and hypotheses, no cause could be inferred; it is important to mention that there was nothing abnormal in the umbilical cicatrix.

In the adult, the symptoms of peritonitis are well marked; it is difficult to mistake them: the symptomatology is so plain, that without a want of experience that can only be admitted in young persons upon their entrance upon the profession, it is impossible to avoid a rigorous diagnosis.

Is it so in Infants? No. Here we are destitute of the infor-

mation afforded by the patient ; here the disease is not reflected, as in the adult, by the contracted face, the small, corded, peritoneal pulse. Pain upon pressure exists, indeed, and meteorism ; but these two morbid manifestations occur also in affections of the intestinal tube, and yet in a great measure the diagnosis must be based upon them. It is therefore well to define accurately their conditions, their intensity and progress in peritonitis of young infants, as distinguished from entero-colitis.

The onset of peritonitis in infants is rapid ; we cannot say whether it is preceded by shivering as in adults, but we can assert that it is not announced by any prodromes. The patients that we have observed, enjoyed a satisfactory state of health until the very onset of the peritonitis. As far as we could perceive, until then they presented no unusual symptoms.

Entero-colitis commences less suddenly ; at first the child refuses the breast, or suckles with indifference for two or three days before the attack ; then borborygmus occurs, and the evacuations soon manifest derangement.

In Peritonitis.

The abdominal sensibility is greater than in any disease of the abdominal organs : the child cries upon the slightest pressure.

Meteorism occurs with the greatest rapidity. At the very commencement of peritonitis the abdomen becomes tympanitic almost while we are looking at it, while, at the same time dullness is established over the inferior or pubic region.

Vomiting is rare, and usually occurs only at the outset ; the matters ejected are unmixed, very green, and stain a linen cloth.

Constipation was a marked symptom in the two cases we observed.

The countenance is little changed ; the eyes are more fixed than usual, perhaps ; the plumpness of form is unaltered.

The child is motionless, and cries when it is moved.

The respiration is entirely thoracic, and is greatly accelerated ; the inspirations are short and incomplete.

In Entero-colitis.

The abdominal sensibility is less acute ; slight pressure does not cause the child to complain.

Meteorism occurs less rapidly, and always bears a relation to the intensity of the abdominal lesion.

Vomiting is frequent ; the matters ejected are almost always mixed, and of a yellowish-green color.

Diarrhœa is an almost constant phenomenon.

The countenance is rapidly altered ; the eyes and mouth are surrounded by bluish rings ; emaciation is rapid.

The child frequently flexes its limbs upon the abdomen.

The same symptoms occur but much less strikingly. The diaphragm does not remain motionless and passive as in peritonitis.

Such are the most striking symptoms which we have observed. They differ in some respects, particularly in regard to the appearance of vomited matters and of the countenance, from those described by Billard, almost the only physician who has carefully studied peritonitis in children at the breast, or given a description of it at all complete. This is astonishing, for since this author wrote, infantile pathology has been very extensively explored, and several masterly treatises have been devoted to it. In these, however, this redoubtable affection receives only a passing notice. Some persons may complain of our omission of the signs of peritonitis furnished by the general symptoms and particularly by the pulse. We have not mentioned them because they are identical with those observed in other febrile affections.

CASE I. *Acute Peritonitis; death.*—A male child, forty-two days old, entered the hospital on the 25th of May, 1850. The lower limbs were covered by a papulous syphilitic eruption; a sero-purulent, sometimes sanguinolent, discharge oozed from its nostrils. In consequence of the obstruction of the nose, respiration was laborious and lactation difficult.

The child was placed upon mercurial preparations, and confided to a healthy nurse, and soon became fat and hearty. Towards the end of June the eruptions had disappeared, but the ozæna was not cured. The nurse having conceived a great affection for the child consented to take the bi-chloride of mercury in order to cure it. The results of this treatment were soon manifested; the child improved most rapidly.

On November 8th, the child became obstinate all at once, uttered cries, refused to take the breast; the face was flushed, the eyes fixed; vomiting of bilious matter occurred. The abdomen became enormously distended; it was hot; it could not be touched without causing the child to cry and to shed tears. Constipation; hurried thoracic respiration; high fever. (*Two leeches near the umbilicus, emollient cataplasms; laxative enema; diet.*)

The child cried all night, lying motionless in its crib.

On the 9th, more vomiting; one consistent dejection. The abdomen was very tense and painful. (*Protracted warm bath; four leeches to abdomen; emollients.*)

The child died in the course of the day.

Autopsy twenty-four hours after death. No emaciation. The peritoneal cavity was filled with a flocculent sero-purulent liquid; there were various intestinal adhesions. The peritoneum was highly injected; there was little or no redness of the intestines, the mucous membrane was healthy; the liver was

covered by a purulent layer ; the intestines were greatly distended by gas. No other organs presented the slightest alteration, except the nasal bones, which were thickened from periostitis. The umbilical cicatrix was complete, and without redness.

CASE II. *Acute Peritonitis : death.*—A new-born child was brought to the hospital, Nov. 17th, 1852. It was a female, very small and feeble. The eyes were invaded by a grave purulent ophthalmia. It was put under treatment for this affection, and for a stomatitis (muguet) which supervened shortly after, and, at the commencement of January, all of its functions were well performed, it had gained flesh, and would have left the hospital but for the inclemency of the season.

On the 14th of January, the child became cross, and cried when it was moved, and showed no inclination to nurse. The left lower extremity was œdematous, and was covered by erysipelatous patches. (*Hygienic precautions.*)

Jan. 16th. The erysipelas disappeared from the left limb, but invaded the opposite limb.

Jan. 18th. The inflammation abandoned the inferior extremities, and attacked the left side of the trunk and the lower part of the arm. In the evening there was bilious vomiting.

Jan. 19th. The abdomen became enormously distended ; the child no longer vomited ; the belly was hot, and excessively painful. The slightest touch made the little patient cry. There was dullness at the inferior portion of the abdomen, but fluctuation could not be perceived ; the face was flushed, the eyes fixed, the inferior extremities motionless, the respiration incomplete, thoracic ; one consistent dejection ; fever. The erysipelas was still manifest on the arm. (*Four leeches to the abdomen ; emollients ; laxatives ; diet.*)

The child died in the afternoon.

Autopsy.—Liver enormous, fatty, yellow. Sero-purulent liquid in peritoneal cavity ; recent false membranes and adhesions of the intestines ; a slight amount of purulent serosity in the left pleural cavity. The lungs, spleen, and intestines presented no pathological alteration. The cellular tissue of the left leg and arm was infiltrated by serum. There was nothing abnormal in the articulations.

In this case the peritonitis was discovered during life. The case which preceded it had taught us a useful lesson.

We shall say nothing of the treatment of this disease, except that it is our intention, having derived so little bene-

fit from antiphlogistics and emollients, to combine the mercurial preparations with these, when the occasion presents itself.

We are not, however, very sanguine as to the eventual result of this combined treatment, for death arrives so promptly in this disease, that we can hardly believe that constitutional therapeutical agents can have time to act.

CASE III. *Acute peritonitis; volvulus; death.*—Since we recorded the preceding observations, we have met with a third case of peritonitis in a new-born child, complicated with volvulus. This is its history:—

A female child, born at the Maternity, was brought to the hospice on the 22d of March, 1853, the seventh day after his birth. It was a large infant, of good constitution. Its body was covered by psoriasis guttata. Suspecting a specific cause, although we could not detect the opaline border which Bielt regards as the pathognomonic sign of the venereal affection, we confided the child to a nurse who was already taking mercurial preparations for the cure of a syphilitic child whom she was nursing.

Until the sixth day after her admission, we observed nothing in the little patient; she nursed well, slept well, her functions were well performed, the eruption did not progress; but, on the 28th, we found a radical and menacing change in her situation.

The abdomen was tense; there was considerable meteorism, exquisite sensibility, dullness above the pubes, short and hurried respiration; the countenance was anxious; the eyes were fixed; the limbs were motionless; the child cried when she was moved; she had not urinated since the preceding evening; no vomiting; constipation; feverish pulse; cold extremities; the eruption had faded.

The catheter was passed, but it did not evacuate a single drop of urine. The child was placed in a hot bath, with the hope of bringing back the eruption; the abdomen was fomented, emollient injections were administered, and a table-spoonful of the syrup of manna.

In the afternoon of the 28th, the patient vomited yellowish matters resembling fæces to the eye, but inodorous. The psoriasis had completely disappeared. The little patient was expiring.

A catheter introduced into the bladder and also into the rectum brought away neither urine or fæces. The diagnosis had been written over the patient's cradle:—Acute peritonitis and volvulus.

The child died, then, on the day upon which the disease commenced.

Autopsy.—Several of our colleagues and resident students of St. John's hospital were present at the post-mortem examination.

The bladder was contracted, it contained not a drop of urine; the peritoneum was highly injected, and contained a turbid flocculent serum; the intestines were glued together by a greyish, semi-liquid substance: the small bowels were strangulated by bands of lymph; the ileum was invaginated; the rectum was empty, whilst the portion of intestine above the obstacle was filled with yellowish liquid. The convex surface of the liver was covered by false membranes; the spleen was enlarged. The lungs, kidneys, encephalon, heart, and other organs, were normal.

This observation (*case?*) is interesting in several particulars. It confirms, in the first place, the description we have already given of the symptoms and progress of this disease; and it was accompanied by a phenomenon which is not mentioned by any of the physicians who have written upon the diseases of infancy, a complete suppression of the urinary secretion. As to the causes of this symptom, we can only speculate upon them. There is another important question in connection with this case. Can it be regarded as an example of spontaneous, idiopathic peritonitis. Many physicians deny such a disease altogether, but a careful examination of the above case seems to demonstrate its existence. In fact, the first symptom which appeared was the rapid distension of the abdomen, accompanied by the ordinary symptoms of peritonitis in children, with dullness above the pubes, whilst the psoriasis still preserved all its distinctiveness, and showed no tendency to disappear. A metastasis could have been inferred if the abdominal symptoms had followed the disappearance of the cutaneous eruption, but this was not the case.

We shall conclude these brief and incomplete remarks by insisting upon a capital fact, which we noticed in each of our three patients: the rapidity with which effusion and the organization of false membranes occurred. As soon as pain and meteorism were discovered, percussion indicated that effusion and purulent agglutination had also taken place. We have not spoken of fluctuation, because we were unwilling to resort to the manœuvres necessary to detect it, in consequence of the extreme pain which they would produce.—[*Journal de Médecine de Bruxelles. Virginia Med. and Surg. Journ.*

Cancerous Growths. Experiments of Dr. H. A. JOHNSON.
Artificial Tissues. By E. ANDREWS, M. D.

Cancer growths have long defied the investigations of knife and microscope, of retort and crucible, to disclose the conditions of their malignancy. Probably bolder sweeps must be made by the wing of Science before we shall see the unlocking of this mystery. The scope of investigation, however, at present leads us to hope that we may yet succeed in forming artificial tissues, and learn from them the conditions of their growth and means of their extermination.

Dr. Johnson, one of the enterprising editors of the N. W. Medical Journal, has given this subject an examination. He remarks (vol. 1, p. 1, new series,) that the anatomical cause of the malignancy of cancer is the continual and irrepressible growth and reproduction of cells. He next shows, by chemical analysis, that there is in these growths a remarkable predominance of inorganic salts, and also remarks upon the fact that malignant growths are most frequently found where cell growths predominate, as in glands and mucous membranes, but most frequently of all in those glands to which there is a special determination of these salts, as the testes and the mammae. The experiments of Beneke and others have even shown that these salts, particularly those of lime, soda and potash, may actually be made to generate bodies resembling cells, out of the body. Dr. Johnson repeated and varied these experiments, with a view to ascertain whether these salts might not have such a cell-producing power as to account for the inordinate cell growth of cancer. His notes are as follows:

"Exp. No. 1. Albumen, fat and water, intimately mingled together. Exposed to a uniform temperature of 104° F. Examined after nine hours—contains oil globules, granules, and a few imperfect celluloid bodies. After twenty-two hours no perceptible change noticed.

"Exp. No. 2. Albumen, oil, water and phosphate of lime. At the expiration of ten hours, contains granules and bodies resembling the cells found in pus and mucus. After twenty-two hours, granules previously noticed very abundant—bodies resembling pus or mucus globules, with masses of matter very similar to those sometimes found in the urine, and composed of epithelial scales. After seventy hours fewer of the granules and a large number of the celluloid bodies. Upon the addition of acetic acid, dark spots are seen having all the appearance of nuclei; each globule seems to have a perfect cell wall.

"Exp. Nos. 3, 4, 5 and 6 were variations of Nos. 1 and 2, by subjecting to pressure during the process, and by adding to

the preparation a small quantity of super. carb. soda in solution. The results were similar to those previously noticed.

“Exp. No. 7. Oil, phosphorus and water enclosed in a piece of bladder, and placed in a cup containing albumen. After thirty-six hours the albumen in the cup contains granules and celluloid bodies, as in previous experiments—the bladder is nearly empty with the exception of gas which is distended. In the drop of fluid remaining there is found an abundance of the phos. lime, oil globules and the celluloid bodies. Acetic acid affects them precisely as it does organic cells. Ether renders the walls more opaque.

“Exp. No. 8. Repetition of No. 7, with like results.

“Exp. No. 9. Albumen, water, and super carb. soda in a glass tube, closed by clean fresh membrane, and immersed in a cup containing oil, water and phos. lime held in solution by acetic acid. After twenty hours the fluid in the cup contains granules, celluloid bodies, and triangular prismatic crystals, almost exactly like those of the triple phosphate found in the urine. In the tube are granules and a few celluloid bodies.

“Exp. No. 10. Albumen, water, phosphate of lime, slightly acidulated with acetic acid, in a tube closed by membrane, and placed in a cup containing oil, super carb. soda, and water. After twenty hours the fluid has all passed out of the tube into the cup, which contains bodies like those already described, and others of greater size, more irregular outline, and containing large distinct nuclei.

“Exp. No. 13. Oil, phos. lime, and water slightly acidulated, in a tube closed by membrane and placed in a cup containing albumen, water and carb. potass. After twenty-four hours the cup and tube both contained celluloid bodies of small size and very regular outline.”

From these experiments he concludes that the inorganic salts favor cell development, and that the presence of these salts in excess is the cause of that ungovernable growth and reproduction of cells which is the element of destruction in every cancer.

He derives from these facts two indications of treatment. First, to prevent the receiving of the salts into the system. This he would accomplish by making the diet as purely vegetable as the patient will bear, vegetable food containing less of the obnoxious substances than animal. The second indication is to remove from the system as much as may be the salts that accumulate in it. To this end he would make free use of the organic acids, particularly the lactic, because these acids readily dissolve the calcareous and other salts, and these keep them in a condition to be eliminated by the proper excretory organs. This subject of the formation of artificial tissues is still under

investigation in Europe. The British and Foreign Medico-Chirurgical Review for April speaks of artificial cells formed by M. Panuin, from the serum of blood, resembling milk corpuscles. He first obtained from the serum a substance resembling the caseine of common cheese; this substance he dissolved by adding phosphate of soda, and then added butter and sugar in the proper proportions for milk. The whole being shaken up and then allowed to cool, had the white color and very much the taste of real milk. Under the microscope, corpuscles like milk corpuscles were observed, and also bodies like nuclei of cells with nucleoli in them. Animals readily drank and digested this artificial milk, but it differed from the natural product in not being capable of perfect coagulation.

M. Melsens has been experimenting with artificial fibrous tissue and membrane. He makes a saturated solution of albumen and some salt, and then exposes it to a violent shaking. In consequence of the agitation the clear solution becomes turbid with fibres, which when allowed to come to rest and settle in one stratum, form a sort of membrane. These fibres under the microscope, have a clean outline and look like perfectly organized bodies, resembling the yellow fibrous tissue. These experiments are interesting, as tending to bring all the resources of science to settle the question whether art can originate organized tissues. The above experiments, plausible as they seem, are not perfectly satisfactory; for although we can understand that a globule of oil floating in a saline albuminous solution, might by chemical action, form a solid covering or sack around itself, it is not clear that it would be any thing more than a chemical precipitate on the surface of the oil. It is not fairly proved yet whether these artificial cells can or cannot perform the vital functions of secretion, reproduction and nutrition. A similar remark may be made of the fibres spoken of. The form resembles that of known organized fibre, but whether they are possessed of any property of life is not known. The fibrous form is not decisive as to vitality, because we can easily conceive that the curling eddies in the agitated fluid might draw the forming albuminous precipitate into fibres and shreds without a particle of living tissue being in existence. Yet it is gratifying to find that investigators are going on in the attempt to form living tissue, for if they succeed they will shed a flood of light on obscure diseases, and if they ultimately fail, it will be almost as valuable as a negative result, as success would be for a positive one. It will be a great point gained when we know whether organic synthesis is or is not possible to the chemist.—[*Peninsular Journ. of Med.*

On the Modus Operandi of Fecundation. By WALDO I. BURNETT, M. D.

With every inquiring mind there is a deep interest connected with the development of animal life. To watch the origin and rise of new forms, to trace the successive phases through which they pass, as the ideas on which they are based become more and more definitely expressed, until finally the perfect animal is produced,—these have been favorite studies from the earliest times with some of the most genial minds, and over which they were accustomed to dwell with increasing delight. But more interesting still, because more wonderful, is the study of those necessary preliminaries of all individual development—the mysterious conditions of fecundation. To observe, after nature has prepared the material, how she puts up a new structure, and to trace the adaptive idea in the laying of each part, require but opportunity united with careful diligence and patience. But to lift the veil beneath which lie hidden the more than mysterious relations of individuality, this is to tread on the confines which separate the material from the immaterial world.

There is no question in physiology so difficult and at the same time so interesting as—*How* is a new individuality started by the conjugation of the sexes; and where so little could be observed, there has been more scope for speculation.

In modern times, however, with certainly better instruments if not better opportunities, we have looked for less talk and more knowledge; and in this respect, it may be justly said that we have approached pretty near that boundary, which, as it is the limitation of that which can be perceived by the senses, is the real confine between the known and the unknown in physical science.

As it would be profitless to notice the labors of those numerous men, who, in this department have written upon what they really knew nothing, yet speculated much, we shall attempt to show the state of our real knowledge on this *ultimatissimum* of physiology—the *modus operandi* of fecundation.

Modern histological studies, have, we think, pretty definitely settled two fundamental and important points: 1st. That the ovum is, morphologically, only a nucleolated cell; and 2nd. That the sperm cell is the true homologue of the ovum.

The ovum (fecundated) produces the embryo; the sperm-cell the spermatocytic particle. The embryo and the spermatocytic particle are the correlative representatives of the female and the male sex. One is the metamorphosed nucleus (vitellus) of the one; the other the metamorphosed nucleus (nucleus) of the daughter cell) of the other. In both, the ovum and the sperm

cell, the process of segmentation seems a necessary preliminary to the evolution of the new being.*

The strict correlation between the essential products of the sexes is as wonderful as it is beautifully suggestive of the unity and simplicity of plan by which nature proceeds. This point, so seductive in all its relations, might be dwelt upon in detail, but we will continue with main and general facts. The ovum, as a nucleated or nucleolated cell, continues to grow, and whatever size it may attain to by the endogenous formation within its capsule of new cells, yet, when complete, it is, (even though belonging to the *Ostrich* or *Epiornis*,) morphologically, only a great compound nucleated or nucleolated cell. All these conditions of origin, growth, and maturity, can be satisfactorily studied in the lower animals, and we would especially recommend the compound *Ascidia* for this purpose. The ovum, thus complete, is ready for fecundation.

We have already said that the sperm cell is the analogue, or more properly *homologue*, of the ovum; its origin and development, as we have traced them in all their details, are precisely the same as those of the ovum. The sperm cell increases to a definite size, its nucleus (vitellus) then regularly segments, 2, 4, 8, 16, &c., and the results of this segmentation, are daughter-cells. The condition of the sperm-cell at this moment is like that of the ovum produced by the same process of segmentation. I mean the *mulberry-like* condition. But at this point there is a digression, for with the sperm-cell the nucleus of each of the daughter-cells is changed into a spermatic particle, while with the ovum, the whole mass is metamorphosed into the new being by a process of substitution.

The spermatic particle, then, is only a metamorphosed nucleus of a cell, and, perhaps, were the analogy carried out completely, each daughter-cell would be the representative of a miniature ovum.

Physiologically, the phenomena we have thus briefly described, obtain equally in the vegetable kingdom; for, as recent discoveries have shown, even in the simplest cellular plants there is a conjugation of two kinds of cells, the product of which terminates in a new generation; in the other plants, the superior cryptogamia, and the phanerogamia, there are parts which in a developmental as well as morphological point of view, correspond to the essential male and female products of animals.†

* See Researches on the origin, mode of development, and nature of the spermatic particles among the four classes of the Vertebrata.—*Mem. Amer. Acad., N. S.*, v, *pt.*, i, 1853.

† We would refer to a profoundly physiological memoir by Robin, titled: "Ovum, its existence as well in the male as in the female of plants and animals," &c. *Comp. Rend.*, 1849.

Throughout the organized world, therefore, the conditions which wait upon the true generative process are the same—the combination of the representative products of two distinct sexes—and these products, whatever may be said of their form, are always physiologically the same; they are cells or cell-products.

Here we would make a general statement which embodies a great deal of physiology on this subject: A true generation must be regarded as resulting only from the conjugation of two opposite sexes, from a sexual process in which the potential representatives of two individuals are united for the elimination of one germ. The germ power thus produced may be extended by gemmation or by fission, but it can be formed only by the act of generation, and its play of extension and prolongation by budding or by division must always be within a certain cycle, and this cycle is recommenced by the act of the new conjugation of the sexes.

In this discussion, we have satisfactorily reached this point that the ovum and the spermatic particle are the potential representatives of the sexes to which they respectively belong. From their union results the condition of fecundation; the grand question now is, what is the *modus operandi* of this fecundating act? Bischoff's view, based upon speculative probabilities rather than upon observation, is, that contact alone of the spermatic particle with the ovum being sufficient for fecundation, impregnation consists in a kind of catalysis which has its exemplification in chemical conditions as enunciated by Liebig, (see loc. cit., p. 425.) But if catalysis embodies conditions in the organic like those of its relations in the inorganic world, it falls very far short of affording the requisite explanation of these phenomena, as we hope soon to show. This field of probabilities and possibilities we shall enter upon again.

Newport's contributions upon the physical phenomena of this subject are far the most complete that we have, and being the results of a most trustworthy observer, they deserve our special attention.

Newport's experiments and observations show, in brief, that contact alone of the spermatic particles with the ovum is requisite for fecundation, that each ovum requires several particles; and that there must be *duration* of this contact. Here is a limit to observation of physical facts, and we regard these important data worthy of full trust, considering the source from which they come. This author discusses briefly the question of the impregnative power, and from the fact that the spermatic particles are sometimes seen to disappear on the surface of the

egg-envelopes, he thinks it may be fair to conclude that the agency of this body is material in its operation; on the other hand, the fact of a mere *momentary contact* producing changes in the ovum, suggests in his mind the so-called catalytic power of certain known bodies. But he thinks that neither this last, nor endosmosis, are sufficient to account for the phenomena of this grand act.

The view of Keber, has at least the merit of being unique if nothing more. As long ago as 1838, Martin Barry* announced that he had observed spermatic particles without the ovum. It should be mentioned however, that long previous to this, Prevost and Dumas† in their researches found these particles within the envelopes of the eggs of frogs. But Keber's alleged discovery is, that the introduction of the spermatic particles within the ovum, takes place through a special opening, a kind of micropyle, or an infundibuliform passage. This discovery was made upon the eggs of muscles (*Unio* and *Anodonta*.)

The announcement of the presence of such a structure on the ovum is indeed wonderful, and more especially so since other observers, whose attention has been particularly directed to the embryological study of these animals, have failed to notice it, although one would suppose that an apparatus of this kind must be very visible. Keber affirms that he has observed a like structure in the ova of some other animals which he has examined. But, however well fortified he has sought to make his observations, they certainly need more than the usual confirmation, and we cannot but regard it as far from being a settled fact in embryology, that the ovum has a direct structural communication externally for the ingress of spermatic particles to its interior.

After all this discussion of facts, we revert to the primary question, what is the nature of the fecundating act? We have seen that its physical phenomena consist in the contact of active vital spermatic particles with the mature ovum; that this mature ovum, thus affected, experiences peculiar changes which terminate finally in the evolution of a new being possessing the characteristics of the male as well as the female parent. It is true that, as was observed by Prevost and Dumas, and as has since been confirmed by Barry, Newport, and others, the spermatic particles may force their way through the envelopes of the egg some distance into its interior, but we regard this as an unessential condition of the fecundatory act; adhering by their heads to the envelopes of the egg, the incessant action of the tails of these bodies would obviously tend to force them inwards,

* Barry Philos. Transact., 1840, pt. ii, p. 532—1843, pt. i. p. 33.

† Prevost and Dumas, Ann. d. Sc. Nat. ii, p. 233.

and especially through such homogeneous, soft tissues as the egg-envelopes.

By referring to the resultant phenomena of this fecundating process, we may perhaps gain some insight into the conditional if not the real nature of its agency. We have already said that the spermatic particle is the potential representative of the male; what signification is to be attached to its mere physical form, that is, whether it is conical, globular, &c., we know not; and this seems the more hidden from our perceptions, from the fact that exactly similar forms and sizes,—in fact, physical relations apparently identical—belong to spermatic particles of animals as widely dissimilar as could be. This fact alone, of the correctness of which we are well assured from our own observations, should be sufficient to convince us that we have here to deal with no very simple relations or properties. But let us pursue the subject a little further. I scarcely need remark, that the offspring partakes equally of the physical peculiarities of both parents. It will at once be perceived, that in no way can the child receive those of the father except through the medium of the spermatic particles. And so, however strange it may appear at first, yet the conclusion is irresistible that spermatic particles must contain, concealed within them, in fact must be the vehicles of, not only the general peculiarities of the father as an animal, but mental dispositions also, and as is too often true of our own species, morbid taints superadded to all. It is wholly insufficient to say with Bischoff, that these anomalous conditions belong to the catalytic action; or with Newport, that they may be the exemplification of a force, peculiar and *sui generis*. For there is something above and beyond the wakening of latent forces, of one particle that is positive with another that is negative. The grand fact is, that the act of fecundation includes—whatever may be said of its also vitalizing the ovum—the communication or the transmission of the *individuality* of the male parent to the ovum; and the material organ of this transmission is, exclusively, the spermatic particle. We cannot see that these phenomena have an adequate explanation in any chemical relations of matter yet known, and what is more, we cannot conceive the possibility of this ever being the case, unless, indeed, chemistry gets beyond the domain of physics. Not but that chemistry involves points which are equally obscure, such as affinity, isomorphism, &c., but then the conditions of vitality, and especially the grand manifestation of it in question, certainly seem to us to include relations which have no correlation whatever with those pertaining to inorganic matter. To us the relations and conditions of cells, which are the primordial forms

of organization, demand the *teleological* view of organic life.* *Individuality* is the distinguishing feature of organization, and we recognize in it something more than a mere collocation of physical conditions; we regard it as an Idea which exists before organization, which last is only the language in which the Idea is expressed. The conditions of this process of fecundation which we have just reviewed, will accept no other explanation, say what physiologists may about the *unphysical* character of such a view; we must have something beyond mere *combination*, which lies with physics; this we have in *development*, which lies with life.

In conclusion, we may say, that as the domain of science lies with demonstrable phenomena, so its legitimate study is with the sensible and tangible. The conditions of immaterial agencies, and their relations with material forms, must be accepted as pure phenomena incapable of the analysis of ordinary scientific facts. But after all, how much more of an enigma is the process of fecundation than the essence, the primordial cause of every thing connected with both the inorganic and organic world about us. Science should put out her long, tentacular arms in all directions, laying hold of the tangible and the sensible, but it should be remembered that the supra-sensible is beyond her pale, and that "*multa esse constant in corpore quorum vim rationemque perspicere nemo nisi Qui fecit potest.*"—[Silliman's Journal.

Hemorrhage from the Throat, produced by Cod-Liver Oil.

By Professor GAMBERINI.

Many pathologists have accused cod-liver oil of causing hæmoptysis, but as this symptom is so common in those suffering from pulmonary tubercles, it is difficult to determine whether it is due to the remedy, or to the ordinary effects of the disease itself. In order to obtain a positive solution of this problem, it is necessary to study the phenomenon in question in individuals using the remedy, who are exempt from any disease of the respiratory organs. It is upon such data that Dr. Gamberini has endeavored to discover the truth.

Every physician who prescribes cod-liver oil is accustomed to hear his patients complain of a sense of heat and burning in the throat, which varies in duration and intensity, and sometimes makes it necessary to suspend the use of the remedy. If the fauces are then examined, a deep redness will be observed, extending over the whole of the superior portion of the pharynx,

* See The Relations of Cells to the Physical and Teleological views of Organization, in Silliman's Journal, xv., 87, Jan., 1853.

over the palatine arch, and the tonsils. The capillaries appear engorged; sometimes the epithelium is apparently removed.

When this condition occurs, a transudation of blood often supervenes, to the patient's great alarm, and the no small embarrassment of the physician. The blood sometimes scarcely colors the saliva, and sometimes forms considerable coagula. The hæmorrhage is often preceded by pruritus and cough. If the remedy is persevered in, notwithstanding these symptoms, the hæmorrhage increases. On the contrary it ceases promptly when the medicine is suspended.

Auscultation excludes the idea of an alteration of the bronchial mucous membrane, or of the pulmonary tissue, a negative proof, which, when combined with direct inspection, is sufficient to enable us to assign to this hæmorrhage its true seat and cause.

The researches of Dr. Gamberini will doubtless, as a first result, inform practitioners of the possibility of this accident, and the change of prescription which it indicates. Pereira and Cartoni teach that cod-liver oil should be rejected in the treatment of phthisis, because it favors the recurrence of hæmoptysis. Is it not very probable, if the foregoing explanations are correct, that these authors have been deceived in regard to the phenomenon, and have mistaken a *staphylorrhagia* for the hæmorrhage caused by the softening of tubercles? This question acquires great importance from the fact that cod-liver oil is probably the best remedy for certain forms of phthisis, and that, consequently, it would be most unfortunate to attribute to it dangers which it does not possess, and to deprive ourselves of a precious resource against true hæmoptysis, in consequence of chimerical apprehensions.—[*Bulletino della Scienze Mediche. Gaz. Méd. Paris. St. Louis M. & S. Jour.*

By a singular coincidence the following two very remarkable cases are reported in the same number of the American Journal of the Medical Sciences, (Oct., 1853.)

Impalement upon a Pitchfork-handle, entering per Vaginam: Recovery.

Dr. Sargent, of Worcester, reported (to the Boston Society for Medical Improvement) the case, which had occurred in his practice nearly two years ago. A lady, of about 37 years of age, who had borne several children, the last about three years previous to the injury about to be mentioned, and whose last menstrual period had been about a week before, her bowels also being in good lax condition, in sliding down from a hayloft,

impaled herself upon the handle of a pitchfork, which passed in at her vagina to the length of twenty-two inches, when her feet struck the ground. The handle was immediately withdrawn, the patient carried into the house, and Dr. S. sent for. He found the patient, half an hour after the injury, lying on her back, with the thighs flexed, and the skin cool, pale, and moist (as if from fright), and the pulse not much accelerated. There was no external injury, and no physical evidence of effusion into abdomen or thorax, and no urine nor feces on the garments, nor about the person, nor on the field of the accident, nor on the handle of the fork. There was some blood flowing from the vagina. Patient passed water during the visit, and it was not stained with blood. She complained most of pain in the left thorax, on a line with the scapula. Dr. S. saw the handle of the fork, which was rounded, a little larger at the end than elsewhere, perfectly smooth, two inches in diameter, and showed distinctly the stain of blood up to an abrupt line, twenty-two inches from the end.

Dr. S. theorized, in this case, that the instrument must have perforated the vagina at its upper part to the left, and gone between the uterus and rectum. [If it had gone to the right, it would have perforated the cæcum.] The form of the instrument would make it much easier for it to pass between than to perforate organs, and Dr. S. supposed that it passed in front of the kidney, behind the spleen and between the diaphragm and false ribs, peeling up the costal pleura till it reached the scaleni muscles. The subsequent history of the case, which showed a fracture of the first rib, while, also, there was at no time any effusion into the chest, proved this diagnosis correct. Supposing that the greatest safety of the patient was in what might be called *forced rest*, Dr. S. gave her one grain of morphia (by estimate), and bound her chest firmly with a broad bandage of new flannel, placing a towel, wet in cold water, between this and the skin. The morphia was repeated in an hour, and one-third of a grain three hours after. Patient passed water repeatedly in first twenty-four hours, without trouble and without blood, and passed coagula from the vagina. The day following, there was emphysema above left clavicle; and, the day following, crepitus in left axilla high up, as if from fracture of bone. There was at no time any evidence of pneumonia or pleurisy, though there was deficiency of respiratory murmur in left chest from the pain in its expansion, the percussion remaining good.

The pulse stood at 120 for several days, and the opiates were continued about as long.

The injury was inflicted the 7th of August, 1851, and Dr. S.

was in daily attendance for nine days ; and, occasionally, afterwards, for three weeks. The recovery was entirely favorable, the patient being left only with an ill-united fracture of the first rib, over which there was some painful swelling for several weeks, which ultimately subsided, leaving an osseous prominence in the supra-clavicular region, in intimate relations with the scaleni muscles.

Extensive Laceration and Contusion: Recovery. By G. S. BRYANT, M. D., of Aberdeen, Mi. (Communicated by Prof. C. D. MEIGS.)

During my residence in Amherst county, Va., in 1850, I was called, on the 25th of April, at about 3 P. M., to see Phæbe, a slave, æt. 25, black, smooth skin, small stature, and the mother of three healthy children.

On arrival, learned that, at about 2 P. M., patient had leaped from the height of ten feet, and alighted upon a tobacco-stick, which had been driven firmly in the ground and was concealed by some loose fodder. The stick was four and a half feet long, and one inch square. The vagina was entered without doing much injury to the vulva ; the stick passed up the canal, and perforated its walls on the right side of the os uteri, entered the cavity of the abdomen, and passed in an oblique direction upwards, and finally lodged against the twelfth and eleventh ribs of the right side.

4 P. M. Hemorrhage quite subsided, but at the time of the accident it was very profuse from vagina ; pulse 120, and very small ; extremities cold ; countenance anxious ; pain in abdomen distressing ; nausea and frequent vomiting ; mind clear.

Treatment.—℞. Tinct. opii. ʒj. ; brandy ʒij. To be given at once, and repeated every hour or two until reaction, or relief was obtained ; warm applications to the extremities, and a poultice to the entire abdomen, constituted the principal treatment.

26th, 4 P. M. Slept during the latter part of last night, and has been sleeping occasionally during the morning, but is not altogether free from pain. Reaction took place about 12 o'clock last night ; pulse now 110, quick and hard ; abdomen much swollen, hard, and tender to the touch ; complains a good deal of the side, about the point where the stick lodged, and the lower region of the liver. The swelling and contusion externally are considerable, and she cannot bear the part to be handled ; vulva very much inflamed ; passes water with pain and difficulty.

Dover's powders, grs. x., at bedtime, to be repeated during

the night if necessary; effervescing draught every two hours; continue poultices.

27th, 10 A. M. Rested pretty well last night; pulse 112, hard; skin dry; abdomen very much distended and painful to touch; eyes very red; has vomited some bilious matter; passes her water still with difficulty; bowels have not been moved since accident. \mathcal{R} . Hyd. chlor. mit. grs. vj.; rhei, grs. x. Make iv. pills; to be given at once, and followed by an enema of soap and water in six or eight hours, if no action is had by this time; anodynes and poultices continued; vulva to be frequently cleansed with Castile soap and warm water.

28th, 11 A. M. Pulse 100 and softer; has had several bilious discharges; some discharge of pus from vagina; no other material change. \mathcal{R} . Blue mass, grs. xvj.; Dover's powder, grs. xi. Make into viij. pills. One to be given every six hours. Continue effervescing draught, poultices, &c.

29th, 10 A. M. Abdomen enormously distended, dull on percussion and painful on pressure; bowels have been moved twice; discharges of bilious character; pulse 118, small and quick; rested badly last night; skin dry, tongue coated over with a brown fur. Continue treatment.

30th, 10 A. M. Had, about 2 o'clock last night, a copious discharge of grumous blood from the bowels, which discharge continued to occur every hour or two until 9 A. M. this morning; could not ascertain the exact quantity, nurse supposed it to be from seven to eight quarts; this is no doubt a too liberal estimate. Abdomen has gone down very much; pulse 130, small and feeble; skin dry and cool; she seems quite exhausted; vaginal discharge continues. Ordered half a grain of sulph. morphia at once; infusion of serpentaria \mathfrak{z} j., to be given at intervals of two hours. Continue pills and poultices, but discontinue draught.

May 2, 9 A. M. Abdomen much flattened; had two bilious discharges yesterday, free of blood; pulse 112, small and soft; vaginal discharge more profuse; passes her water freely; skin dry, has some appetite. Continue treatment.

4th, 10 A. M. Has done well since last visit, until last night. Nurse thinks she was alarmed by a conversation which took place in the room upon the subject of death and her probable recovery. After an hour or two she was better, and again expressed her belief that she would get well, never before having any doubt about her recovery. Bowels have been moved once this morning; biliary secretions improving; skin continues dry; pulse 108; appetite better. Continue treatment; is allowed a more nutritious diet.

6th, 10 A. M. Pulse 108, soft; skin moist; bowels in good

condition ; appetite good ; vaginal discharge diminishing ; complains of little else than soreness in the right side.

Ordered tonics and better diet ; mercury discontinued ; no appearance whatever of its constitutional effects.

8th, 12 M. Convalescing. Continue tonics.

11th, 11 A. M. Convalescing rapidly.

Recovered fully by the middle of June following.

On the Nature and Treatment of Diabetes Mellitus, or Glucosuria. By M. BOUCHARDAT.

[The following abstract upon this subject is taken from the review of an article in the memoirs of the French Academy, 1852.]

By the plan which M. Bouchardat now recommends to our notice, in its full detail, he declares that he can cure the majority of cases of diabetes—his test of cures being not only present removal of the sugar from the urine, but the ability of the patient to employ feculent aliment, without its reproduction. He, however, requires the intelligent co-operation of his patient, and, above all, the frequent testing of the urine, by the patient himself, as a means of ascertaining progress and guarding against relapse. The means chiefly to be relied upon are those of hygienic character ; and at all events the power of these should be exclusively ascertained at first, before resorting to any medical agents.

1. *Diet*—As long as the urine exhibit sugar, all feculent and saccharine aliments must be entirely excluded ; but the patient need not be confined to what is called an exclusively flesh diet, although this, when not repugnant to him, is the best. Every description of meat, dressed with the usual sauces and seasonings (to the exclusion of flour, however) may be employed ; and for those who can get over the prejudice against it, the flesh of *carnivorous* animals, M. Bouchardat says, is best. By proper management (and what cannot a French cook do?) that of the cat or fox becomes a highly relished viand. Several poor patients, who otherwise would have been unable to procure flesh diet, have resorted to this means with advantage. Fish, in all its numerous varieties, forms a valuable resource for both rich and poor, and may be eaten with an abundance of oil and a moderate quantity of vinegar. Eggs, again, so susceptible of various modes of preparation, are excellent ; and although milk is forbidden, good fresh cream and all kinds of cheese are allowed. Except in extreme cases, green vegetables and salads, although they contain some sugar, starch or gum, may be taken in moderate quantities ; but abundance of

oil, or the yolk of eggs, should be conjoined. For such patients who cannot well overcome their liking for bread and other feculents, M. Bouchardat has, during the last ten years, had prepared a bread of flour containing 70 per cent of gluten.

As the prohibited feculent and saccharine bodies belong to that respiratory group of alimentary substances, we have to choose others from the same group; and those best calculated to supply their places are fatty bodies and alcoholic drinks. Among the latter Bordeaux wine occupies a prominent place, as much as from one to two *litres* (from two to four pints.) being admissible *per diem*, which, at ten per cent of alcohol, would supply about 150 *grammes* ($2\frac{3}{4}$ oz.) of this substance in the 24 hours. Fatty bodies must not be given too exclusively lest they excite disgust, but mingled with other aliments, from 150 to 200 *grammes* being required in addition to the alcohol. Beer is objectionable from containing dextrine. Coffee drunk without milk or sugar, and to which a little rum, cream or brandy may be added, is a good drink. To relieve thirst, Seltzer, Spa, Vichy, or soda water may be taken; but acid drinks, so keenly desired by the patients, are very objectionable. The patient should always eat and drink in moderate quantities, slowly masticating his food. This practice tends to the relief of the attendant dyspepsia, and to assist the distended stomach to return to its normal dimensions. A flannel bandage applied around the epigastrium contributes to the same end.

2. *Clothing*.—As chills operate very injuriously on these patients, warm flannel clothing forms a valuable protective agent, and beneficially excites the languishing function of the skin. Indeed some medicinal agents are of no avail unless aided by complete flannel clothing which maintains diaphoresis. General frictions are very useful, and a moist warmth of the feet should be maintained.

3. *Exercise*.—To recommend this indiscriminately would be injudicious, for many patients are too feeble to undertake it. But when their strength has become somewhat recruited by regimen, walking, gymnastics, agricultural labor, &c., much expedite the cure, and are found, as recovery is approaching, to enable the feculent aliments to become utilized by the system.

4. *Pharmaceutical Agents*.—M. Bouchardat entertains a high opinion of the utility of *carbonate of ammonia* (from 5 to 15 *grammes*—77 to 230 grs. in the 24 hours,) providing flannel clothing be worn. Other *alkalies* suffice for slighter cases, when the urine contains uric acid as well as glucose. Employed consentaneously with out-of-door exercise, they seem to exert great influence in preventing the reappearance of sugar

in the urine, when feculent aliments are resumed. *Opiates*, if given alone, are mere palliatives; but when conjoined with other remedies, and in moderate doses, so as to act on the skin they are very valuable. M. Bouchardat sometimes prescribes Dover's powder, but prefers the old theriaca before all other preparations, without defending the absurd complexity of its composition.

In severe cases of glucosuria, then, diet, exercise, and flannel clothing constitute the basis of treatment, carbonate of ammonia and opitates best aid their action. Other remedies have their occasional uses, such as iron, tonics, chloride of sodium, and antiscorbutic plants. M. Bouchardat often employs emetics at the commencement, and endeavours to modify the disturbed functions of the liver by aperients, of which ox-gall with rhubarb is the best.

Circumstances influencing the effects of Treatment.—Foremost among the *favourable* indications in a case is the *rapid return of the urine to a normal state*, which may take place in from 24 to 48 hours after the feculents have been excluded. The *recent date of the affection* is another highly favorable circumstance; and because it is so, M. Bouchardat urges testing the urine whenever the slightest suspicion can be held, and for the detection of relapses, which are frequent and insidious. Other favorable circumstances are the retention of considerable *embonpoint*, the easy circumstances of the patient, and his being in possession of great perseverance.

The *unfavorable* circumstances are the reverse of the above; but negligence is still worse than poverty, as the poor man has some resources. The treatment of the case is usually ill managed in *hospitals*, owing to the vitiated air, the absence of exercise, the sameness of diet, and the insufficiency of the surveillance. The existence of a great *appetite* is a common and not unfavorable circumstance, requiring only moderation in its gratification, at meals not too far separated. *Want of appetite* is a far more unfavorable sign, which should be actively combated. M. Bouchardat has found small doses of rhubarb, and exercise in the open air, of advantage. *Obstinate constipation*, resisting the most varied purgatives, is a bad complication, indicating disease of long duration, which has produced important modifications in the condition of the alimentary canal. Fatty substances, combined with matters which leave residue, as spinach and gluten-bread with bran, are here indicated. *Cold and damp air* is unfavorable to diabetic patients; but M. Bouchardat has had patients from Algeria, and has not derived advantage from sending others to Italy. M. Bouchardat agrees with Dr. Prout in considering the appearance of *al-*

bumen in the urine, which is often met with, as an unfavorable occurrence. The prognosis of saccharine albuminuria is not so serious as is that of simple chronic albuminuria. The frequency of the occurrence of *phthisis* in cases of glucosuria is familiarly known. In all the autopsies the author has made, when the patient has not been cut off by an intercurrent affection, tubercles have been found in the lungs; and he feels convinced that many cases of *phthisis* have had their origin in a glucosuria that has been overlooked, and which might have been easily removed. In severe and old cases of glucosuria, *vision* is always found more or less enfeebled; but in most cases, when not of old date, as the condition of the patient has improved under appropriate regimen, this amaurosis has subsided. When indeed this is not the case, the prognosis of the glucosuria is serious; and it will often be found complicated with albuminuria. *Impotence*, more or less decided, is another effect of glucosuria; but in young subjects the generative functions resume their power when the original disease is rationally treated. Glucosuria may occur at any age, from infancy to senility; M. Bouchardat having met with most cases between the age of forty and fifty. He met with none between eighteen and twenty-five. Old age does not constitute an obstacle to cure; but so difficult is it to watch over children, that the author is not aware of a sustained cure prior to fifteen years of age. He has met with more male than female patients.

[*British and For. Medico-Chirurgical Review.*

A New Mode of Treatment for Prolapsus Uteri.

M. Desgranges, Surgeon to the Lyons Hospital, has laid before the Academy of Medicine of Paris, a new mode of remedying the uterine displacement. It consists in pinching up the mucous membrane of the vagina, after reduction, with little forceps, or "*serres fines*" of Vidal. The forceps produce ulceration, and fall off from the fifth to the tenth day; and M. Desgranges repeats this operation eight or ten times, taking care always to leave as many of the forceps as possible. At the commencement he introduces as many as nine; later, from six to four; and at last, towards the end, only one of the little instruments. The treatment lasts in general two months and a half, or three months.

It will be seen that this method rests on the fact that the narrowing of the passages may prevent any farther descent of the organ, the loss of substance and cicatrization being instrumental in the result.—[*Lancet*,

EDITORIAL AND MISCELLANY.

Utero-abdominal Supporters, Braces, &c.—There are few, if any, of the modern devices for imposing upon the credulity of the afflicted which we feel more disposed to condemn than the contrivances vended under the various names of Utero-abdominal Supporters, Body Braces, &c. The fact that they have in many instances received the countenance of men of standing in the Profession, renders it imperative on the part of those who believe them injurious, to assign their reasons for such difference of opinion. It is unfortunately too true, that the love of notoriety and the prurient desire to see one's name in print, may account for some of the signatures appended to the certificates heralded in the newspapers from one extreme to the other of our wide-extended country, and that some of our brothers have now earned for themselves the unenviable cognomen of "universal certifiers." But there are unquestionably many who honestly believe these appliances useful, and accordingly feel no hesitation in lending the influence of their name to the patentees.

It matters not under what specific patent the articles are sold—they are all made for the accomplishment of the same mechanical purpose, and differ very little from each other. Those termed "*Utero abdominal Supporters*," are contrived for the avowed purpose of supporting the abdominal contents, and of thus removing the superincumbent weight from the pelvic viscera, and the womb in particular. Whether the mere weight or pressure of the abdominal viscera ever operates as the direct cause of prolapsus uteri, or prevents the cure of this infirmity, is a mooted question which we do not wish to discuss at present. Our object is simply to determine whether the apparatus under consideration is adapted to the accomplishment of what is claimed for it—viz., to relieve the uterus from the pressure of the superimposed masses.

Nature has wisely provided that at the age at which the vaginal outlet of the pelvis is most apt to lose much of its resistance, to become relaxed, and consequently to favor the descent of the uterus, the abdominal walls also become more yielding and pendulous, so as to overhang the brim of the pelvis, and thus to throw the weight of the abdominal contents anteriorly to the axis of the pelvis, where it cannot be felt by the uterus. Now the "*abdominal supporters*" consist of a belt, more or less broad, with a strong plate in front, designed to draw the abdomen upwards at the same time that it is compressed by the belt; thus effectually bringing the weight of the viscera back to

the position from which nature has deviated it, and therefore over the axis of the pelvis, into which the viscera are impelled in proportion to the tightness with which the belt is applied. Is it not evident, that any pressure exerted upon the abdominal contents by means of corsets or belts of any kind must necessarily tend to force them upwards against the diaphragm and downwards into the pelvis? And is it not equally manifest, that the addition to the belt of a plate or supporter in front cannot alter this mechanical effect? It would really, in our humble opinion, be difficult to imagine a better contrivance for the purpose of *inducing* prolapsus uteri, if it were desired to do so by directing and applying the weight of the abdominal contents to this purpose. How could you more effectually force the viscera into the pelvis than by elevating the pendulous abdomen and forcibly compressing its contents?

But, since the simplest reference to mechanical principles would seem to forbid the use of these instruments, let us invoke the aid of experience, and ask professional men of observation and of candor, how many females they have ever known who could tolerate such bandages for any length of time. We are free to testify that we have never known one of these supporters to be worn without inconvenience and detriment to the patient's condition. If any one else has been more fortunate we are not aware of it. A few years ago a peripatetic lecturer and patentee of the articles honored this city with a visit, and, it was said, realized some two thousand dollars from the sale of his "woman's relief." A number of our fair but frail friends patronized the stranger, but with no other relief than that of the weight of their purse.

The only kind of "supporter" that can be beneficial in prolapsus uteri, is that in which the perineum is forced upwards by means of a pad attached to a belt. The vaginal outlet is thus compressed and the uterus prevented from descending; but in such cases the belt should hang upon the pelvis or hips in such manner as not to compress the abdomen materially. Otherwise, the downward and upward pressure would neutralize each other.

With regard to body braces, shoulder braces, &c., destined to aid or to supersede the action of the muscles, we cannot but look upon them as ultimately injurious. The sedentary and delicate female who is easily fatigued by exercise on foot, will doubtless feel relieved for a while by such mechanical support; but it is at the expense of a still greater increase of the existing muscular debility. There is no principle in physiology better established than that the power of the

muscles will grow with use, and diminish by inactivity. Muscular debility must therefore be overcome by exercise of the muscles, and not by substituting braces in their stead. If shoulder braces be applied loosely, and for the mere purpose of apprising the wearer that he is stooping, so that he may by the action of his muscles correct his position, they may be thus far useful; but it is out of the question for them to do good by supplanting the muscles.

BIBLIOGRAPHICAL.

Lectures on Surgical Pathology, delivered at the Royal College of Surgeons of England. By JAMES PAGET, F. R. S., &c., &c. Philadelphia: Lindsay & Blakiston. 1854. 8vo, pp. 700. (For sale by McKinne & Hall. Price \$3 50.)

These Lectures of the distinguished author treat specially of Hypertrophy, Atrophy, Repair, Inflammation, Mortification, Specific Diseases, and Tumors—all subjects of deep interest to the general practitioner as well as to the surgeon. Prof. Paget has very judiciously drawn largely upon the Pathological Museum of the Royal College for illustrations, and has been thus enabled to embody a most valuable collection of facts in confirmation of his views. We regard this volume as a valuable acquisition to Pathological literature.

A Text Book of Anatomy, a guide in Dissections, for the use of Students of Medicine and Dental Surgery By WASHINGTON R. HANDY, M. D., Professor of Anatomy and Physiology in the Baltimore College of Dental Surgery, &c., &c; with 264 illustrations. Philadelphia: Lindsay & Blakiston. 1854. 8vo., pp. 810. (For sale by McKinne & Hall. Price \$4 00.)

The object of the author, is to supply the wants of "the Dental as well as the Medical Student," by the preparation of an anatomical work "which directs special attention to the Mouth, showing step by step the important anatomical and physiological relations which it has with each and all the organs and functions of the general system."

"Dental students are slow to see and feel the necessity of a knowledge of any more of Anatomy than so far as the Teeth and their immediate connections in the mouth are concerned, and to go beyond this is thought rather a waste of time, and entirely foreign to the practice of the profession they design to pursue. . . . To correct this false and dangerous sentiment and to demonstrate the necessity of anatomical knowledge to the scientific, skillful, and successful Dentist, equally with that of the Physician, forms the second and chief reason which has induced the author to write the present work."

These quotations from the Preface will serve not only to show the na-

ture of the work, but also the clumsy style of the author's diction. The wood-cuts are poor, but probably as good as could be furnished for the price. The author's intentions are praiseworthy, and we hope that this work may be productive of the desired reformation.

Chemistry and Metallurgy as applied to the study and practice of Dental Surgery. By A. SNOWDEN PIGGOT, M. D., late Professor of Anatomy and Physiology in the Washington University of Baltimore. With numerous illustrations. Philadelphia: Lindsay & Blakiston. 1854. 8vo., pp 516. (For sale by McKinne & Hall.)

This is really quite an interesting work, which cannot fail to meet with favor and to be eminently useful. It comprises a résumé of animal chemistry, and a full account of the chemical principles involved in the various organic changes originating in the mouth, together with their bearing upon the minerals used in operations upon the teeth. The Book upon the "Chemistry of the Mouth" is especially instructive. The latter half of the volume is devoted to the Chemistry and Metallurgy of the metals and earths used by the dentist; comprehending the different modes of applying heat; furnaces; auxiliary apparatus; and an account of the materials used in making incorruptible teeth. The work is got up in fine style, and is highly creditable to both author and publishers.

A Treatise on the Venereal Disease. By JOHN HUNTER, F. R. S. With copious additions by Dr. PHILIP RICORD, Surgeon to the Hospital du Midi, Paris, &c. Edited with Notes by F. J. BUMSTEAD, M. D., Physician to the N. W. Dispensary, New York. Philadelphia: Blanchard & Lea. 1853. 8vo., pp. 520. (For sale by T. Richards & Son.)

The present edition of John Hunter's great and original work derives additional value by being associated in the present instance with the no less original views of Ricord—and, although these distinguished authors are found not unfrequently at variance with each other, the collision always throws additional light upon the question. The study of syphilitic disorders has been eminently progressive, and we are here furnished with the opportunity of seeing at a glance the advances made since the Hunterean era upon many points of this difficult subject. This work is justly entitled to the patronage of the profession.

The Medical Formulary: being a collection of Prescriptions, derived from the writings and practice of many of the most eminent physicians of America and Europe; together with the usual Dietetic Preparations and Antidotes for Poisons. To which is added an Appendix, on the Endermic use of Medicines, and on the use of

Ether and Chloroform. The whole accompanied with a few brief Pharmaceutical and Medical Observations. By BENJAMIN ELLIS, M. D., late Professor of Materia Medica and Pharmacy in the Philadelphia College of Pharmacy. Tenth edition, revised and much extended. By ROBERT P. THOMAS, M. D., Professor of Materia Medica in the Philadelphia College of Pharmacy. Philadelphia : Blanchard & Lea. 1854. 8vo., pp. 296. (For sale by T. Richards & Son.)

This Formulary is too well known to need any commendation at our hands. No work of the kind has ever been more popular with the profession, as the fact of this being the 10th edition abundantly testifies. This edition is "enlarged and revised up to 1854."

In addition to the above works, we have received the following :

An Inquiry into the Nature of Typhoid Fevers ; based upon a consideration of their history and pathology. Presented to the American Medical Association at its session in May, 1853. By Henry F. Campbell, M. D., of Augusta, Ga.

Prize Essay ; read before the State Medical Society, at its eighth annual meeting in Dayton, June, 1853. By Samuel G. Armor, M. D.

Hospital Hygiene—illustrated ; read before the New York Academy of Medicine, June, 1853. By John H. Griscom, M. D.

New Views on Provisional Callus. By Frank H. Hamilton, A. M., M. D.

An Address to the Public in regard to the affairs of the Medical department of Hampden Sidney College. By several Physicians of the city of Richmond.

Also, several Introductory Addresses, &c.

We regret that we cannot notice these more at length at present.

Opium. The Opinions thereon of SHRAPPENKUTTEL SMELFUNGUS, M. D.

"I acknowledge no procrustean creed, decapitating nonconformity !"

All is blue in the office of Smelfungus. He is blowing a cloud, and the room is filled with the aroma of tobacco, about the paternity of which there can be no doubt—it is genuine Connecticut, and no mistake.

"Longevity," he says, "cannot be considered a characteristic of the materia medica. From the earliest days of medicine, emphemere have arisen, fluttered out their existence, and disappeared from the view. But other articles there are which possess inherent vitality, which have been for ages the main pillars of therapeutics ; and which still stand firm in their stately proportions. And stateliest, with firmest shaft of these, is opium.

"Opium ! mysterious drug, whose potency is felt not only in the body, but in the recesses of the mind : where is the link that connects the sleepy poppy with the grandest powers of our nature ? By what

deephiddden agency does it lull the racked nerve to quiet, and steal upon the mind with gorgeous dreams, extending time and space beyond conception? No man has yet returned from these close pene-tralia with power to tell their secrets. Used daily and hourly for many centuries, it is still unknown, misunderstood, abused, and underrated. De Quincy, wrapped in Elysian dreams by its still influence, quaffing by imperial pints his 'happinness in bottles,' with powers of utterance never equalled, 'speaking as never man spake,' has lifted the silver veil, only to reveal behind it the blackness of darkness. He has called from out the depths: but his voice is choked with sorrow, and we hear sighs only—*suspira de profundis*. Oh, mighty agent! instrument by which the soul dips down to Acheron, and gazes through the portals of Tartarus: no power can interpret or destroy thee!"

"Now Smelfungus," I venture to insinuate, "you are on stilts as long as that euphonious baptismal name of yours, and allow me to suggest, you are gyrating rather awkwardly. How are you going to get down?"

Smelfungus looked grieved, holds silence for a moment, and then abruptly changes his style of address.

"Have you noticed, my friend, how all things work together for good to them that love physic? Have you seen how, out of this expectant humbug, have come goodly things—figs from thistles, grapes from thorns? Our otherwise Expectant must needs do something. His lazy theory was to wait for positive indications; and very naturally, one eternally recurring indication was the relief of pain. So our friend, Expectant, follows it out, and when you come to examine his treatment, you find here, there, everywhere, opium, and opium alone, prescribed in all the ills that flesh is heir to, from Abscess to Unknown. Of course, this was nonsense and error. Better and more scientific was old Dr. G.'s prescription for a 'singing in the head,' viz: a poultice of old music books applied to the coccygeal region, with the luminous idea of 'drawing the music down!' There's revulsive treatment for you! But after all, good cometh from every new thing. Some of Expectant's patients get well, and that without regard to old time depurative theories. And some of these were cases whereof Dame Nature had not the handling. Dame Nature is a botch! To relieve a pleuritic inflammation, she fills one side of the chest with water; a remedy from which the patient might well pray to be delivered. But Expectant coming to a case of incipient pleuritis, makes a homœopathic diagnosis, calls it 'pain in the side,' and gives it three or four grains of opium therefor. Patient gets well instantler. Well, Expectant comes to another patient, finds her with low typhoid symptoms, and abdominal tenderness, but not much else to complain of. In the absence of any decided indications, Expectant prescribes his eternal opium. By-and-by this patient, too, recovers, and Mr. Observer, standing by, beholds a case of puerperal peritonitis cured by opium.

"From all this, I, sir, sitting in philosophic judgment, derive the

great fact that we know nothing about opium. Tell us, old Monument, who have for forty years dealt out your opinions, what you know about it? Did you ever dream that it was a *curative* you were handling, and not a palliative merely? Man of the microscope and testing tube, read for us this deep, this Sphynx-like riddle! Are we yet—we staunch old regulars—to yield the field in this matter? Is opium the curative means, the efficient drug in our mixed prescriptions of calomel et opii.aa.grs.iiij.? For, look you, country practitioner, dealing Schieffelin's best powdered from the blunt point of your old jack-knife, your old Clysterpipe, who have not weighed a prescription these half-score years, your small doses of opium weigh three stout grains!

"*Rest!* This is the word. Here, in rest and sleep, 'tired nature's sweet restorer,' lies the secret. One sensible thing that Dame Nature does, is to put her patients to bed—to so prostrate their lusty muscles, that the sturdy knees give way, and the recumbent posture becomes necessary. Here then is the great curative, and opium is a means thereto. 'Old functional Harmony' used to tell us, with extremest unction, that 'uterine contraction was the remedy for uterine hæmorrhage.' Not lead, nor ergot, nor cold water. nor compression, nor the tampon, but any one or all of these, which could bring on uterine contraction. So here, in inflammation. Rest is our remedy—not calomel, nor antimony, nor blood-letting, nor opium, but any one or all, or none of these, so that you secure rest.

"There is a vague idea, derived from some exploded theories, that calomel has, *jure divino*, a certain control over inflammation—that the presence of calomel in the stomach, simultaneously with inflammation in the viscera, is incompatible. Now, good Sir Hunker! you know that I—Smelfungus—have the highest respect for you of the conservative school. You know that on every occasion I have ranked myself among you—have bowed to the existence of a liver—and scouted at the pretensions of these new comers, who bear that flaunting 'banner, with the strange device,' *Young Physic*. But, my dear sir, we must compromise or surrender. Let us come down a peg or two and we shall still be men of note. Let us use a little Twiggs's hair dye and rejuvenate ourselves—gray hairs are at discount now-a-days. Look you! only a day or two since, a certain divine declared a decided preference for young physicians over old. He had the hardihood to intimate that one good theory, round and well established, was worth ten years' experience. He was a Scotchman, and I said to him, that 'it behoveth a Scotchman to be right, for if he be wrong, he be for ever and eternally wrong.' Between you and I, my aged friend, it is about time to cave. Now I have a talent for compromises, and I can propose a satisfactory arrangement which shall govern this vexed question of Calomel *vs.* Opium. Let us hereafter say nothing about being 'bilious.' That's all well enough at the bed-side, but it is ruled out of professional intercourse. Let us give our calomel, as we did of old, to all patients of firm fibrinous habits, whose blood has a tendency to plastic exudation. So much we claim for our side of

the house. Now we may as well, 'needs must when the devil drives,' concede to Young Physic, that calomel should be withheld in cases where this condition does not obtain, viz., in those manifold diseases where the blood has a tendency to fluidity. I fear that this will narrow down the amount of the drug used, but we must come to it. Don't you recollect feeding calomel, for a fortnight on a stretch, to that strumous little girl with dysentery last year? How fast she did gain, didn't she? And how nicely you could trace the curative influence of the calomel, couldn't you?" And Smelfungus puts his tongue to his cheek, and makes a mysterious gesture with his thumb over the left shoulder. And I can imagine Editor Flint perusing this back-sliding confession of Smelfungus with a quiet smile and a chuckle, which means 'I told you so!' But Smelfungus loves freedom of action; he cannot bear to be fastened by the green withes of tradition. Witness the motto at the head of this article.

But touch him gently, Dr. Flint! or you may yet see Smelfungus astride his old bilious Rosinante, charging the windmills of natural medicine with the stern voiced war cry:—"Floret Colomelas—ruat cælum!"

"Salts, sir, in all his steps—manna in his eye—
In every gesture, calomel and rhubarb."

Smelfungus loves fun, and from no recent occurrence has he derived so many good horse-laughs as from the developments at Bellevue *in re* of opium in puerperal peritonitis.

"Dr. Clark would have made no great stir with his interesting experiments in peritonitis, had he not been so severely criticised. Not but that Dr. Clark's treatment was a goodly instance of *a priori* reasoning applied to therapeutics—brilliant in its conception, and triumphant in its success. But the fun of the matter lies in the criticism of the N. York Medical Gazette. 'This,' he says, 'comes of making hospital doctors of mere theorists. He tells us that we must look in the dead-house records for the results of such treatment. *Of course* the patients are dead. He stops not to enquire about it—they are dead *de necessitate*; and he sheds his tears over them as freely as a child in the measles. Smelfungus can see him; leading a lacrymose group of anxious inquirers beside the green shores and still waters of the East River. With solemn step and slow, he conducts them down the gravel walks of Bellevue, 'twixt cabbages and onion beds, and sadly points to the little dead-house, as filled with the mementoes of Dr. Clark's recklessness.

"But they look in vain—these women are not yet defunct, but still live to bend as best they may, with abdomen probulgent over their wash-tubs, the spared monuments of human folly."

"Oh, that mine enemy had written a book!"

If I were to tell you, gentle reader, all that Smelfungus says about the matter, I should detract from that solemnity which becomes the pages of a medical journal. A pompous dignity is the main-stay of our profession, and by a parity of reasoning, a medical monthly should indulge in no unseemly eachinnations. VALE.—[*Buffalo Med. Jour.*

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ORIGINAL AND ECLECTIC.

ARTICLE IV.

The following Report was read at the annual meeting of the Medical Society of the State of Georgia, held in Savannah in April last, and is taken from the "Transactions" published by the Society :

On the Best Plan of Treating Fractures in Country Practice.
By L. A. DUGAS, M. D., &c.

The tenor of the question upon which it has been made my duty to report, would seem to presuppose the necessity of a plan for treating Fractures in the country, different from that usually pursued in cities and hospitals. If such necessity exist at all, it must arise rather from the different circumstances under which such cases are respectively managed in the country and in cities, than from any peculiarity in the accidents themselves.

Country practitioners reside at distances more or less considerable from their patients, and can therefore see them comparatively seldom. Hence the propriety of adopting methods of retention that will not be apt to incommode the patient so much as to require modification, that will not easily become displaced, and that may be readjusted by the ordinary attendants, if this should become necessary before the physician can be present.

Again: country practitioners are frequently called upon to set fractures when they cannot procure the more perfect and special apparatus usually kept in well organized hospitals, by city apothecaries, and by surgeons in extensive practice. They must therefore use such means as may be at their command, or such as they may obtain at any plantation or isolated dwelling.

As the object of this paper is purely practical, I will not stop to estimate the relative value of the many plans proposed, nor to quote authorities for or against what I may suggest; but will, as briefly as possible, present what *I* conceive to be, in the language of the question, "the best plan of treating fractures in country practice." In doing so, it would savour of presumption were I to expect, for a moment, that all will agree with me as to the propriety of the procedures I may recommend. I will, therefore, be quite satisfied if I have the good fortune to secure the concurrence of a majority of the enlightened members of this Society.

It cannot be expected that a report of this kind should comprehend the treatment, in detail, of each particular fracture. I will consequently deal in generalities, as far as possible, and individualize only in such cases as this may seem to be absolutely necessary.

The first bandage usually applied to fractured limbs, especially in our country, is one to which I must object; I mean the roller bandage. I object to its use, not only in country practice, but also in that of cities; and as I have elsewhere (*Southern Med. and Surg. Journal*, Feb., 1850, p. 80) expressed my views upon this part of the subject before us, I beg leave to quote the language then used:

What are the ends proposed to be attained by the application of the roller or other compressing bandage to a fractured limb? They are, I believe, three-fold—viz: to aid in retaining the bones in their proper adaptation; to prevent the swelling of the limb, and to reduce this after it has occurred. A serious objection to the bandage thus used is, that its *application* constitutes, by far, the most painful portion of the dressing, especially if the limb be held for the purpose by an unskilful aid. No one who has ever witnessed the application of the roller band-

age, from the toes up to the pelvis, in fractures of the os femoris, when every turn of the roller, however gently carried, imparts motion and intense pain, can have failed to wish that it might be dispensed with. Such, at least, is the case with the patient, if not with the surgeon. This evil is aggravated by the necessity, which very soon occurs, of removing and re-applying the bandage, as will be hereafter stated. Now, if the proper apposition of the fractured ends can be secured without the roller bandage, is not the difficulty and painfulness of its application a sufficient reason to abandon it? But it is also proposed, by its use, to prevent the development of swelling. Let us see if this object is ever attained. Every one knows how difficult it is to apply the roller bandage to a whole limb in such a way that the compression will be perfectly uniform, and the circulation not impeded. Even expert surgeons sometimes fail in this, and the less experienced will of course do so still more frequently. But, however skilfully applied, the tendency to swelling, *at the seat of fracture*, will very soon make the bandage more tight at this point than below it; the venous circulation will become impeded, pain will supervene and increase until the patient or his friends will be compelled to cut loose the bandage, in order to release the stricture. The patient will then have to remain with an imperfect adjustment of dressings until the physician can see him, which, in the country, may be not only hours, but days. Cases also unfortunately occur, occasionally, in which, from the docility or fortitude of the patient, he does not demand and obtain timely relief from the compression, and suffers mortification to take place. One of the most distinguished surgeons of the North stated to the writer a few months since, that he had been repeatedly called upon to perform amputation in consequence of the tightness of the bandage, occasioned by the supervention of swelling at the seat of fracture. There can be no doubt that such accidents are much more common than generally supposed, from the fact that few men are as fond of reporting their unfortunate cases as they are of heralding their successful achievements.

The third object proposed to be attained by the roller bandage is the reduction of the swelling or tumefaction usually occasioned by fractures. For this purpose the bandage is ad-

vised to be applied *after* the tumefaction shall have reached its maximum. At this stage of the case, the bandage is unquestionably less objectionable than it is at an earlier period; yet its application, even now, is very painful; it is still difficult, and it may be so applied as to produce unequal pressure, and consequent strangulation, with all its inconveniences and dangers. If it were absolutely necessary, these objections might be waived; but if not, they should have their full weight in determining the practice to be adopted. It is certainly not *absolutely* necessary thus to reduce the swelling, and the utility of the reduction by such means is extremely questionable. That any real evil arises from such tumefaction as usually follows fractures, has yet to be demonstrated. If left to the efforts of nature, it will subside in due time, without the use of any compression whatever.

If the bones can be maintained in apposition, and the swelling be subdued without the roller bandage, and if this bandage cannot, without great danger, be depended upon for the prevention of tumefaction, the necessary inference is that it may be omitted without impropriety. If, again, it be true that the manipulations required for the application of the roller bandage are always painful, that they have almost invariably to be repeated once or more as the swelling progresses, that the compression is generally the principal cause of pain in the treatment of fractures, and that it occasionally induces mortification, when least expected, we should conclude, not only that it may be omitted without impropriety, but that its use ought to be abandoned in general practice.

The writer wishes not to be understood as alluding here to the starch bandage, recommended by the distinguished surgeon of Brussels. The number of victims to its use, when first suggested, remains yet to be told. Suetin, however, no longer calls it the "*immovable* bandage," but the "*movable and immovable bandage*," and, so great is his apprehension that the roller bandage, which constitutes a part of it, may be applied with a view to compression, and therefore, perhaps, too tightly, that he advises a bit of tape to be placed longitudinally along the two sides of the limb before the roller bandage, and in such a manner that the ends will project above and below; the roller

bandage is then to be applied, with only as much tightness as may be required to keep it in place; after which, the ends of the tape are to be drawn upon, for the purpose of ascertaining, by their freedom of motion, that the compression is neither too great nor unequal. If much swelling ensue, it will be manifested not only by pain, and the appearance of the distal end of the limb, which is always to be left exposed for inspection, but also by the difficulty of moving the tapes beneath the bandage; in which event, he urges the bandage to be slit open and readjusted more loosely. With these abundant precautions, upon which Suetin now dwells with great earnestness, the plan is unquestionably the best that can be devised, whenever the patient can have ready access to the surgeon, or to an expert nurse, as soon as it may become necessary to modify the dressing.

In establishing rules of practice, whether in medicine or in surgery, authors do not sufficiently discriminate between the various circumstances in which both practitioners and patients may be situated. What may be easy and proper under certain circumstances, may prove difficult and injudicious under a different state of things. A system of practice may be highly beneficial, and unobjectionable in hospitals or cities, and be entirely unsuited to the camp or country. What may be harmless in the hands of highly cultivated and experienced physicians, may cease to be so under the administration of practitioners less skilful. It is, therefore, important that the principles, as well as the details of general practice, be plain, intelligible to all, and of easy execution. The safety of society demands that dangerous expedients be discountenanced by the profession, especially whenever more harmless procedures can be substituted for them. The indiscriminate use of the roller bandage, in the treatment of fractures, has often occasioned the most serious accidents, and should give way to the simple use of splints and bandages, applied in such a manner as to admit of being modified, according to the progress of tumefaction, by any person of ordinary intelligence. Let the more complicated and hazardous processes be confined to such cases as may be continually under the supervision of the surgeon.

Your reporter has not, himself, used the roller bandage in the treatment of fractures, for the last fifteen years, and has had no

cause to regret its abandonment. On the contrary, he is satisfied that he has thereby been saved a great deal of trouble in the management of such cases.

The bones having been, by extension, counter-extension, &c., placed in proper apposition, it remains to secure their immobility by such suitable retentive appliances as may be found anywhere. These are common splints, which may be made with the wood of cigar boxes, shingles, white oak splits, and other similar materials. In many instances, it may be found convenient and proper to resort to binder's board, or paste board, which, if not at hand, may be extemporized by cementing together, with starch, or flour paste, a number of sheets of paper, or layers of linen or cotton fabric. The cases in which these may take the place of wooden splints, will be indicated as we proceed.

As to the materials to be interposed between the limb and the splint, they may consist of linen or cotton cloth, cotton wadding, carded cotton, or bags half filled with bran or chaff, according to circumstances. A double fold of linen or cotton cloth, is all that is necessary when the binder's board, or its substitutes, are applied. For the purpose of securing the splints, I would always prefer the many-tailed bandage, or separate ties, to the roller bandage, which is, as already intimated, more difficult to apply, less secure, and not so easily loosened or tightened at pleasure, as circumstances may require.

The splints used in fractures of the *upper extremity* should be as light as possible, for the obvious reason, that any weighty apparatus would prove a serious inconvenience. Cigar boxes, and binder's boards, will be found to furnish the best materials.

In *fractures of the humerus*, the apparatus will necessarily vary according to the seat of injury. If in the shaft of the bone, below the insertion of the pectoralis major, four light splints of wood, sufficiently narrow not to come in contact when applied, and about three inches shorter than the entire bone, may be placed upon thin compresses, and secured with a many-tailed bandage. I have advantageously substituted for these wooden splints, two bits of binder's board, each wide enough to surround nearly one half the arm. These will, if applied wet over thin compresses, mould themselves to the limb, and thus form a very

comfortable casing, which may be easily confined with the many-tailed bandage. In fractures of the humerus, the hand should always be placed in a sling, in such manner that the weight of the elbow may exercise gentle extension.

Fractures of the fore-arm, whether involving one or both bones, will require two splints, one of which should extend from the bend of the arm over the palm of the hand, and to the extremity of the fingers, in order to give support to the hand, and to prevent the use of the fingers, especially in children. The other splint should be applied to the dorsum of the limb, and extend merely from the elbow to the wrist. The size and shape of both should be adapted to the limb, but they must be a little wider than this, in order to prevent the ligatures from approximating the bones. Bits of cloth, or compresses, of sufficient thickness to prevent chafing, should be placed beneath each splint, but the hollow of the hand should contain a thicker pad, to prevent injurious pressure upon the wrist. The splints, thus placed, may be secured with a many-tailed bandage, from the bend of the arm to the wrist, and by another investing the hand and fingers, leaving out the thumb, or not, as deemed most convenient. A handkerchief sling, will complete the dressing.

It will be observed, that we have dispensed with, not only the roller bandage, but also the graduated, or pyramidal compress, usually recommended for the purpose of pressing asunder the ulna and radius. However effectually the bones might be prevented from coming in contact by such a compress, applied upon a skeleton, or upon the integuments of an extremely emaciated subject, I cannot believe that it will avail anything when used under ordinary circumstances. Such a degree of tightness as would be necessary to the full effect of this compress, cannot be tolerated by the patient, and must be hazardous. To guard against union of the radius and ulna, by which rotation of the hand would be impeded; it will be sufficient to have the splints a little wider than the limb, for the reason already stated, and to watch the state of things at the time the callus is about to be consolidated, so as to impart timely motion if required. Your reporter has never seen any bad consequences resulting from the plan here recommended.

There is no fracture for which more complicated appliances

have been recommended, than for those of the clavicle, and yet I know of none so effectually treated by the simplest process. Instead of the bandage of Dessault, and its modifications, I have been long in the habit of substituting the following, with uniform success:

The displacement having been carefully reduced by movements of the shoulder in various directions, according to the particular case, and by direct action upon the fragments themselves, let an aid maintain the reduction by placing the ends of the fingers of the affected limb upon the top of the opposite shoulder, by bringing the elbow against the side, and by pressing up the elbow, so as to carry the shoulder upwards, outwards and backwards, as will be done under those circumstances. The next step will be to secure the limb in this position. For this, I procure a square yard of cotton fabric, (unbleached shirting, for example, as this is softer than the bleached, which is usually starched,) and cut it diagonally, so as to obtain a triangular bit, to the acute angles of which should be sewed slips three inches wide, and three or four yards long. Apply the middle of the base, or long side of the triangle, beneath the elbow, leaving a margin of about four inches behind, and carrying the obtuse angle towards the fingers. One of the acute angles, with its strip, will now be carried between the arm and chest, up to the fractured clavicle, around the back of the neck, over the sound shoulder in front, and beneath the axilla, and finally around the chest, including the arm just above the elbow. The other end and strip will be carried in front of the fore-arm, up to the sound shoulder, behind and beneath the axilla, and around the chest and arm, so as to meet its fellow and be tied to it. Finally, the margin left projecting behind the elbow, should then be elevated, doubled, and so secured with stitches as to prevent the elbow from sliding out of the sling in that direction. The portion of the triangle situated along the fore-arm, should be also folded around it, and thus secured. Lastly, the strips encircling the chest and arm should be stitched, to prevent their upward or downward displacement. If it be necessary to press down the sternal fragment, this can be effectually done by interposing a little pad between the bone and the bandage which passes over it.

The advantages of this bandage are to be found in its perfect adaptation to the necessities of the case, in its great simplicity, in the facility with which it may be made secure, and in the very slight inconvenience to which it subjects the patient. Children, as well as adults, bear it without a murmur; and if it becomes necessary, for the purpose of cleanliness, to remove it, any intelligent mother, or nurse, may re-apply it, if the physician be not accessible. Whilst it cannot be denied that, under any plan of treatment, there will occasionally remain some unevenness or deformity at the seat of fracture, I must say that I have very rarely seen anything of the kind in cases treated on this plan, notwithstanding the fact that I have, not unfrequently, after applying the bandage once in presence of the mother, left the subsequent management entirely to herself.—(See Southern Med. and Surg. Journal, July, 1852, p. 75.)

Fractures of the lower extremities require stouter splints, when used at all. For *fractures below the knee*, a trough, consisting of two lateral bits of board, nailed to the edges of the one upon which the leg is to rest, and bags of bran, or chaff, to be interposed between the limb and trough, will be found both comfortable and effectual. The trough should extend from the bend of the knee to a few inches beyond the foot, in order to prevent this from the eversion to which it is prone in such cases. A light splint, placed upon a bag of bran, in front of the tibia, and secured by means of separate bandages carried around the trough, will prevent any tilting up of this bone, and give to the whole apparatus the requisite degree of stability. If the fracture be such as to render continued extension necessary or desirable, this may be accomplished by having a two pound weight to hang from the ankle over the foot of the bed. Take two yards of strong tape, apply the middle of it across the sole of the foot, and bring the ends up over the ankle and sides of the leg; then secure the tape in this position by passing a roller bandage about three inches wide, around it and the leg, just above the ankle. If the ends of the tape be now turned down, and the weight fastened to them, the force will be applied both to the ankle and the sole of the foot, and may, consequently, be borne a long time without inconvenience. The continued traction, thus obtained, is useful in overcoming the tendency to

spasmodic action of the muscles in the affected limb, as well as in preventing the deformity from shortening, which is so apt to result from fractures not exactly transverse. Separate splints may be substituted for the trough, if this cannot be conveniently obtained.

Fractures of the thigh may be most easily managed by applying four wooden splints, a little shorter than the femur, around the thigh, and confining them by many-tailed bandages, suitable compresses having been, of course, interposed between the splints and the integuments. In addition to these, a splint about four inches wide, and extending from the side of the thorax to a little below the foot, will serve to keep the limb straight, and to maintain the foot in a proper position. This splint should be secured by separate bandages passed around the abdomen, the pelvis, the thigh, (over the short splints,) the leg, and the foot. As continued extension, in these cases, is necessary, it may be effected by a weight, as suggested for fractures below the knee, the resistance offered by the weight of the body being sufficient for counter-extension. It is scarcely necessary to add, that the patient should lie upon a hard bed, so that his body may be as horizontal as possible, and thus prevent any bending at the seat of fracture. We thus avoid the abrasions, or chafing, so commonly attending the use of splints that bear upon the perineum, or axilla; and the apparatus may be loosened or tightened, without difficulty, to suit the exigencies of the case. If it becomes desirable, at any time, to place the limb upon a double inclined plane, this may be done by removing the long splint, and without interfering with the shorter ones.

In *fractured ribs*, I would advise the interposition, between the skin and the broad circular bandage in common use, of a bit of paste board, six or eight inches square, to cover the seat of fracture, and to prevent the bandage from depressing the fragments, as it is apt to do, especially if there be more than one rib fractured.

For the treatment of fractures of the *inferior maxillary bone*, it will be found most convenient to use paste board, which should be applied wet, so that it may be moulded to the jaw laterally and inferiorly. Having thus obtained a good mould, the jaw will rest comfortably in it, and it may be secured by the ordinary chin bandage.

ARTICLE V.

Account of a Case of Double Monstrosity. By H. V. M. MILLER, M. D., Professor of Physiology and Pathological Anatomy in the Medical College of Georgia.

A very interesting specimen of Double Monstrosity was recently exhibited in this city, which demands some notice in this Journal, as well from its having originated in a neighboring State, as from its being a most perfect example of a mode of union extremely rare.

These children, named Milly and Christian, born in North Carolina, of African parentage, are females, now about two years old. They are united posteriorly. The os coccygis of each seems to be bent backwards and to become continuous with that of the other. The lower portion, to probably one-third of its extent, of the sacrum of each, is in like manner joined by bony union to the corresponding portion of the sacrum of the other, forming, with the muscles attached to them and the general integument, a firm band of two or three inches in diameter, but so short that the nates of each child are pressed against those of the other. They are thus united back to back, but not exactly parallel; there is a slight inclination to the right side of the one and to the left side of the other. In consequence of this obliquity they lie more comfortably upon one side than the other, and from having been from birth constantly laid in this position, their heads are not symmetrical; the bones of the cranium having apparently yielded to the continued pressure in one direction.

If the children be separated as widely as the uniting band will permit upon the side *towards* which the inclination exists, the hips (one of each child) united as above described, closely resemble the buttocks of a normal child, and between them is situated a common anus. If the legs of either child be separated, the vulva is brought into view; the upper part of which is not unusual, but at the lower portion it unites with the vulva of the other child, thus forming a common vulva consisting of the conjoined, upper or pubic halves of two vulvæ. Upon separating the labia of this conjoined vulva the entrance to the vagina of each child is shown to be perfectly distinct, separated

externally however, but by a thin septum. The urethræ are also distinct.

If the children be separated upon the side which admits of freest motion, the common vulva, just described, is disclosed, looking, when viewed in this direction, like a transverse sulcus, below which, at the distance of about an inch, is the anus common to both children.

No means have been employed of determining how far up the rectum is the junction of the two alimentary canals, but it is probably above the internal sphincter, inasmuch as the children feel the desire to go to stool and actually discharge their fæces at the same time. This, however, is the only thing which they do in common. The urine is discharged, separately and at different times. In all other respects they are perfectly distinct; hunger and thirst may be felt by one and not by the other: one may be sick and the other well; one suffered severely from teething, the other but little. One of them is a larger, stouter child than the other, but not perceptibly more intelligent. Their intellectual operations are as distinct as though no union existed; they amuse themselves together as do other children—sometimes become angry and resort to blows, and even at their early age are very ready, each to accuse the other of faults committed between them. They are still too young to determine what will be for them the easiest mode of progression. They can stand and walk a few steps either laterally or forward for one of them, while the other follows by a backward movement. The side step is that which most probably they will ultimately adopt.

Much curiosity has long existed in regard to the manner of the birth of duplex monsters, but unfortunately it has not yet been gratified, nor does this instance offer anything satisfactory on the subject. No one was present at the birth except the negro midwife who usually attended the women on the plantation. She could give no other account of it than that one was born head foremost and the other breech foremost. In examining their mode of union, one can readily see how they might have been so placed as to have been born as the midwife states, and have presented no greater obstacle to delivery than a double foetal pelvis, which, if the children were not unusually large,

and the mother were well formed, would be by no means insuperable. In this case the delivery was accomplished with safety both to the mother and offspring.

The subject of monsters, under which general term are included all congenital deformities, whether from excess, diminution or malformation of parts is very differently regarded now by men of science from what it was formerly. In the olden time each monstrosity was considered as the presage of some public or private misfortune, an example of Divine vengeance, the effect of witchcraft or the result of diabolical or beastly intercourse, and to this opinion we owe the name which they still retain derived from the Latin verb *monstrare*.

In more enlightened modern times the subject constitutes an interesting portion of Pathological Anatomy, and demands our investigation as strongly as the other deviations from the normal state, which are ordinarily regarded as the legitimate objects of that science. And though the origin of monstrous births is still enveloped in great mystery, our enquiries are directed more rationally in the search for it, to some original malformation in the germ from which they spring or to some subsequent deformation of the embryo by causes operating during its development, than when writers sought to account for them by supposing sexual intercourse with the devil, copulation with beasts or with menstruating women.

Extended observation has shown that they do not occur by chance or from the mere caprice of nature, but are under the influence of certain fixed laws of organization which they never transcend. Thus, monsters never exhibit a fusion of dissimilar parts, as nerves with blood-vessels, or either of these with the intestines. No malformed organ loses its own character or malformed animal its generic distinction, and though there may be a wide difference between given specimens, there may be traced in the entire series, a distinct gradation arising by successive steps from the lowest to the highest deviation from the normal type; and this with such constancy as to admit of grouping into genera and species, and the construction out of them of a new organic kingdom differing only from the others (as has been remarked by Meckel) by less constancy of form.

The order which prevails even in the production of monsters

is strikingly manifested by the definite number in which they occur, being in Paris about 1 to 3000 births, which would no doubt be found to be equally true of every species into which they may be divided, if observations had been sufficiently extended to ascertain the fact. The frequency with which some occur, and the comparative rarity of others, are well established. Some are so common as to be scarcely worthy of note, except to serve as the basis of calculation; while others, from their infrequency, are in themselves in the highest degree interesting. Of this latter kind is the one briefly described at the head of this article.

Complete double monsters, are by no means so frequently met with as those which are incomplete, or present only the duplication of certain parts; but of the former, certain genera into which they have been divided are much more common than others. The family distinguished by having a common umbilicus, and a bond of union below or above it permitting more or less communication between the abdominal or thoracic cavities, has been often noticed. Individuals of it are to be found in almost every museum; that of the Medical College of Georgia contains two. They are capable of living, but the difficulty of their birth, fortunately, in most instances, puts a period to their existence. The Siamese Twins are a good example of this class in life and are well known.

That class of double monsters known by having distinct or separate umbilici, and united by the head or sacrum, is more rare. Of the latter mode of union the annals of science record but few well authenticated examples, not exceeding six or eight in all. The most remarkable of these, and the best known, were the celebrated Hungarian sisters, Helen and Judith, born in 1701. The mode of union in their case was almost identically such as is described above connecting the "Carolina Twins," and the plate which illustrates it would, allowing for difference of age, well represent also that of Milly and Christian. The following is the account of these sisters, given in the third volume of the admirable *Histoire des Anomalies, &c.*, of Isidore Geoffroy Saint-Hilaire:

Helen and Judith, placed almost exactly back to back, were united exteriorly in the sacral region. The external sexual or-

gans presented evident traces of duplicity; but there existed only a single vulva, situated inferiorly and hidden between the four thighs; the vagina was at its opening single, but soon divided into two distinct vaginæ; all the rest of the sexual apparatus was double. There were two intestines united in a common canal, (the rectum,) which terminated by a single anus placed between the right hip of Helen and the left hip of Judith. The upper part of the sacrum was double, but united about the second false vertebra and terminated by a single coccyx. The two aortæ and the two venæ cavæ inferior, communicated by their extremities, and thus established two large and direct communications with the two hearts, and produced a partial community of life and of functions, the source of physiological and pathological phenomena of the highest interest.

The two sisters had neither the same character nor temperament. Helen was larger, handsomer, more active, more docile and more intelligent. Judith, at the age of six years, experienced an attack of hemiplegia, and remained ever after smaller, slightly misshapen, a little slow of speech and less intelligent. They entertained for each other a warm and mutual affection, and each appeared to regret her misfortune more on her sister's than upon her own account. During their infancy, however, they were frequently known to quarrel and strike each other. Sometimes, to settle a dispute, the stronger or the more irritated would hoist the other upon her shoulders and carry her off in spite of her remonstrances.

The menstrual discharge appeared in both about their sixteenth year, but not at the same time, and there was ever afterwards a difference, in the period, quantity and duration of this discharge, notwithstanding the unity of the external orifices of the sexual apparatus.

They felt simultaneously the desire to go to stool, but separately that to discharge their urine. They could walk either forward or backward, but slowly, and could seat themselves by twisting their bodies in a very uncomfortable manner.

One often waked while the other slept, or one would be occupied while the other was idle. They had the measles and the small-pox simultaneously; other diseases attacked them separately. During the illness of one, the other always experi-

enced more or less internal distress and a feeling of deep anxiety. Struck with this deplorable *solidarity* between the two sisters, physicians predicted that the death of one of them would be necessarily and almost immediately followed by that of the other. In a serious illness which Judith had in her nineteenth year, it was deemed proper to prepare the unhappy Helen also for death, and to administer to her, though still in health, the last sacraments. Judith recovered, however, from this attack, but died three years afterwards of disease of the brain and lungs, when the terrible prediction of the physicians was verified. Helen, who had for several days had a slight fever, almost immediately after her sister's death, lost all strength, became prostrate, and after a short agony, succumbed, a victim not of her own disease, but of her sister's death. Both expired very nearly at the same time. Thus perished these unhappy girls, bound together by indissoluble ties, and condemned by a frightful and inevitable fatality, to suffer during all their life and finally to die the one for the other.

The same author, besides referring to some other cases, quotes one more particularly, reported by Tryling, in which the same union existed. These were born alive just one year before the Hungarian Sisters. At the age of four months a surgeon attempted to separate them, but he employed the cautery instead of the knife, and from this cause or from the inherent difficulties of the operation, violent convulsions ensued and the children died.

This form of monstrosity, like every other met with in the human race, has also been observed in other animals, showing the universal operation of those laws of organization to which they owe their origin and in accordance with which they attain their development.

It is not proposed at present to append to the foregoing account of this remarkable natural curiosity, further remarks in reference to its production. But upon viewing the entire group of singular deviations from normal structure, from the addition of a supernumerary finger or toe up to the complete duplication before us, constituting two distinct beings, the question naturally arises, what explanation is science in the present day able to give of the origin of these phenomena?

This question will be considered in a future number of this Journal.

ARTICLE VI.

A Fatal Case of Puerperal Eclampsia. By J. S. WEATHERLY, M. D., of Palmetto, Georgia.

I was summoned, in haste, on the morning of the 1st of September, to Mr. W—r's. On arriving at the house, I received the following history of the case, before seeing the patient :

The patient is a negro girl, sixteen or seventeen years old ; of small stature ; pregnant first time ; supposed to be at full term ; was well as usual on yesterday evening. She aroused her husband about midnight, and got out of bed, but fell heavily to the floor, as the negroes stated, in a fit. Mr. W—r was sent for, and was soon in the cabin : after witnessing the body of the girl twice writhing with convulsions, he despatched a messenger for me. She had had seven convulsions up to the time of my arrival, (3 o'clock, A. M.), and I soon saw her have the eighth one. She is now comatose, with stertorous breathing, attended with a sighing moan ; bloody froth issuing from the mouth ; the eyelids are half closed—the globes of eyes turned back ; temperature of skin nearly natural ; pulse 115 per minute, moderately full. She has not spoken or moved, voluntarily, since second fit—in fact, she is completely paralyzed. The convulsions come on every twenty or thirty minutes : as they approach, the breathing becomes more difficult, the moaning more distressing, the head is thrown back, the eyes bleared open, the face and mouth drawn to one side, the arms and hands move convulsively, then the whole body jerks and writhes for two or three minutes, requiring several assistants to confine her in bed, and prevent injury. The abdomen is terribly distended, so much so that I remarked that she must be pregnant with twins. Vaginal examination reveals the os uterī soft and dilated to the size of a dime. I could detect no action about the womb, or any sign of life in fœtus. My prognosis was of course unfavorable. Her bowels had already been moved ; and, following the advice of older and wiser heads than mine, I bled her copiously, letting the blood flow as long as it would. She had one or two convulsions while the blood was flowing. After bleeding, we tried to administer quinine, grs. 10 ; ext. belladonna, gr. $\frac{1}{2}$; and one tea-spoonful of McMunn's

elixir opii.; but she had no power of deglutition. Part of the mixture ran out of the mouth, while the other gurgled down the throat, adding to the already evident symptoms of suffocation. A consultation with Dr. Tatom was requested. In the meantime enemas were administered, first to obtain full evacuations; afterwards with opium and belladonna dissolved in them. These were badly retained in consequence of relaxed sphincter ani. A blister was applied to the nuchæ, and the spine rubbed with hot turpentine; the index finger was introduced occasionally, and rotated within the mouth of the womb, to produce dilatation. Nothing seemed to have any effect—the convulsions coming on every twenty or thirty minutes. We tried to bleed again, but failed to get much blood. The quinine and opium were tried again, but none reached the stomach, and very little got into the mouth, as it had to be prized open. At seven o'clock, the os uteri is dilated to the size of a twenty-five cents coin. An infusion of ergot was prepared, and the patient enveloped in a sheet wrung out of hot water, then covered with blankets, after the manner of the hydropaths. She remained about one hour in the sheet. Dr. Tatom, arriving in the meantime, saw her have three or four convulsions whilst in the sheet. She was placed in bed again, and, after consultation, we determined to use the ergot enemas. Three ounces of the infusion were accordingly thrown up every twenty minutes for three consecutive doses—it seemed to produce feeble contractions. The os, at 11 o'clock, is dilated to the size of a half dollar; the head could be felt, but no bag of waters protruded. It was now thought that by a patient trial the hand might be introduced, and version effected. I accordingly prepared to make the experiment; but before she could be got ready for the operation she expired. She had, in all, about thirty convulsions in eleven hours. As soon as possible, after life was extinct, an incision was made into the womb, and two male children of ordinary size extracted. All trace of life was gone in them.

REMARKS.—The convulsions, I suppose, were caused from over-distension of the uterus, irritation, and reflex muscular contractions. We did not administer chloroform, (although

we had it there for that purpose,) thinking that the symptoms would not admit of it. Nothing that was done seemed to have any effect.

If any professional brother has had a similar case, we should like much to hear from him.

ARTICLE VII.

A Case of Dry Gangrene in a girl eleven years of age. Reported in a letter to the Editor, by A. CONNELL, M. D., of Marietta, Ga.

"I send you a morbid specimen, of which the following is a brief history: Being requested on the 26th November last to see a negro girl about eleven years of age, belonging to Mr. Barber, of this county, for the purpose of amputating her leg, I was informed that about six weeks previous the girl was taken sick, with pain about the ankle, and had high fever with delirium for three days. She was treated by the family with ordinary domestic remedies. In about two weeks there was formed at the ankle-joint what they conceived to be an abscess, to which they applied poultices, &c. In about four weeks the limb showed marked signs of serious disease. The day before I saw the case, they were dressing the leg and perceived that it was 'loose,' and concluded that it would have to be taken off.

"When I saw the patient the dressing had not been disturbed for upwards of twenty-four hours, and as I removed this, the foot came off with it, about four inches above the ankle, the stump presenting a very rough and uneven surface from which the tibia and fibula protruded about two inches. The portions of the tibia and fibula attached to the foot (about four inches) were mere shells, covered by very soft and offensive flesh, the skin of which, however, was rather dry and of a dark brown or blackish color, like that of the foot I send you.

"Assisted by Drs. Hardie and Bass, I amputated the leg about four inches below the knee. The stump was inclined to suppurate for a week or ten days; but with the ordinary treatment it has since healed kindly, and the girl is now well. I deem it unnecessary to make any remarks on the condition of the foot,

as you will see it yourself. It has undergone no change since I first saw it."

We are much indebted to Dr. Connell for the very interesting specimen referred to above. We find the foot very much like that of a mummy; shrivelled, dry, of a dark brown or blackish hue, and somewhat offensive when brought near the olfactories. While dry mortification is not a very rare affection in the aged, we do not recollect to have ever seen a case of it in a subject so youthful as this. The specimen is deposited in the museum of the Medical College of Georgia, and will constitute quite a valuable addition to that extensive collection of pathological anatomy.

EDITOR.

Augusta, January, 1854.

A Case of Inversio Uteri. With an analysis of sixty-seven cases, collated from various sources. By SANFORD B. HUNT, M. D.

Mrs. Ann W——, of Irish birth, aged 25 years, was confined with her second child, Sept. 7th, 1853. She was attended by a German midwife, from whom, and from the other attendants, I obtained the following history: The labor commenced yesterday, she having just completed the seventh month of pregnancy. Pains continued during the night and day, until a little after 4, P. M., of the 7th, when, after a good deal of severe pain, the child was expelled. An unusually large quantity of water came away with the child. She was, at the moment of delivery, seated nearly erect in her sister's lap, and the expulsive pain which completed the labor, forced the child down suddenly, so that it dragged heavily upon the cord by its entire weight, and the uterus was instantly, and completely, inverted, and protruded beyond the vulva, lying as a large globular mass between her thighs. She was very faint, and they thought her about to die. The midwife tied the cord and removed the child. She then replaced the uterus within the vulva, and having placed her patient upon the bed, sent for a physician. The case then came under my care.

I arrived at the house about 5 o'clock, say three-fourths of an hour after the accident. She was pale, pulseless, and sighing—apparently moribund. I ordered brandy to be given, and examined immediately. The placenta—the cord being unusu-

ally short—I found presenting at the vulva. I should estimate the length of the cord at from eight to ten inches, though it was not measured. Within the vagina was a large gobular tumor, as large as the head of a child, but not to be mistaken for it. Its surface was rough, moderately firm, and bleeding. This was the uterus inverted, with the placenta firmly adherent to it, in a space of about three by four inches. At this time Mrs. W. lay in a pool of blood, and much blood was constantly escaping from her. Without much difficulty I separated the placenta, with the result of a partial check to the hemorrhage. I then made an effort to reduce the tumor by placing my hand upon the fundus, and pressing it upward, but there being considerable resistance, and as the hemorrhage, though now not great, had become (from the amount previously lost) the more immediate danger, I desisted for the moment from attempts at reduction, and dispatched a messenger for my colleague, Dr. Flint. In the mean time I applied a tampon to the bleeding surface, and cold to the pubes. These means being insufficient, I compressed the abdominal aorta against the vertebral column. The hemorrhage then ceased; and by the continual administration of large draughts of brandy, her pulse rallied, and she was in a more promising situation when Dr. Flint arrived, which was in about twenty minutes after my own advent—the manipulations described not having occupied over five minutes.

Dr. Flint removed the tampon for the purpose of an examination. He confirmed my diagnosis, and we proceeded immediately to the reduction. The open and fully dilated os uteri could be felt through the abdominal parietes over the pubis. Dr. Flint engaging his fingers behind this externally, I introduced my entire hand into the vagina, and gradually carried the tumor up. The fundus, at first with considerable opposition, slowly yielded and rolled in upon itself, until the usual prominent tumor over the pubis being felt, Dr. Flint thought the reduction completed. To convince him to the contrary, I withdrew my hand, and Dr. F. inserting his own, found the posterior wall of the uterus still mostly engaged in the os. By gentle manipulation he soon restored this to its normal position, and retaining his hand within the uterine cavity until contraction came on, the reduction was completed, quietly and safely. On again examining, I found the os uteri *in situ*, and well contracted. Dr. Flint leaving soon after, I gave brandy *pro re nata*. Our patient fell asleep immediately after the reduction. She was very faint and prostrated for some time. At 8, P. M. I bandaged her, and applied cold to check flowing, which was then renewed. R Morph. sulph., gr. $\frac{1}{4}$, every 4 hours.

September 8th.—I found a very smart reaction. She had

headache, her pulse 120, full and bounding, but soft. Moderate flowing. Urinates with ease. R Sulph. morph., gr. $\frac{1}{4}$ every 4 hours.

September 10th.—Up to this time I have maintained the morphia as above. To-day there is febrile disturbance, and abdominal tenderness. Breasts swollen; milk profuse. Attributing this febrile action to the ordinary milk fever, I gave a saline cathartic. Aside from subsequent difficulty in procuring sufficient action of the bowels, Mrs. W. went on to convalescence with no very peculiar symptoms. She now (Sept. 30th) sits up most of the time, and is in a favorable condition.

Since the occurrence of this alarming and nearly fatal case, I have been led from a consideration of the imperfect-state of information on this branch of obstetric science, from the differences of opinion as to its proper management, and from the great importance, both as to the life of the patient, and the reputation of the practitioner, of a clear and definite idea of its real nature, to collate from such sources as were within my reach all cases of which I could find any record, and to furnish the results of this labor to the readers of the Journal in a condensed form.

Of many of these cases I found the records sufficiently full to enable me to ascertain their most important phenomena. In other cases the reports were so meagre, that I could only ascertain a very few of the symptoms present. I have endeavored to present them in such a form as would give to the reader a fair and uncolored view of the facts, and in every case where the occurrence of a symptom was doubtful, I have omitted to mention it.

I shall first give as brief a summary as possible of the results of my analysis, and subsequently shall draw from them such inferences as to treatment as they seem to teach. I trust that these deductions may possess some value. No one man is able to speak authoritatively from his own experience on this subject. So rare is the accident, that the most extensive practitioners frequently pass a lifetime without meeting a single case, while it has often happened, that upon the man of limited resources, and narrow obstetrical experience, has fallen the responsibility of treating this dislocation.

The total number of cases of which I find on record, is *sixty seven*: Of these, *twenty-one* were reduced and recovered; *thirty-three* became chronic; and *thirteen* died.

The number of the labor is mentioned in *twenty-three* cases: *Nine* occurred in the first labor; *seven* in the second labor; *six* are mentioned as multiparous; and *one* occurred after abortion, at the fourth month.

The degree of inversion is mentioned in *forty-one* cases: *Thirty-five* were cases of complete inversion; and *six* were mentioned as partially inverted.

The time at which the accident occurred is noticed in *forty-five* cases: *Nineteen* of these happened immediately on the delivery of the child; *eight* on attempting to remove the placenta.

The remaining *eighteen* cases occurred: *One*, after removing the placenta by the hand in the uterus; *one*, simultaneously with the first after pain, seventeen minutes after the expulsion of the child; *three*, half an hour after the delivery of the child; *one*, eighteen hours after labor; *three*, three days after parturition; *one*, on the eighth day; *one*, on the twelfth day; *one*, on the fifteenth day; *one*, on the tenth day; *four* are mentioned as occurring at unknown periods; and *one*, nine days after abortion at the fourth month.

The condition of the placenta is mentioned in *thirty-seven* cases: In *eighteen* of these it is mentioned as adherent; in *nineteen* it was removed either before the occurrence of inversion, or without recognizing the difficulty; in *ten* cases the placenta was intentionally detached when adherent.

The records as to hemorrhage are very imperfect.

In only *six* cases is the degree of hemorrhage *before* removing an adherent placenta mentioned: In *one* of these it was slight—this case was fatal; in *five* it was large in amount—one of these was fatal.

The degree of hemorrhage *after* detaching an adherent placenta, is mentioned in *ten* cases: In *eight* of these it is mentioned as slight; in *two* it was dangerous—one of these was fatal.

Hemorrhage is noticed after removing the placenta as usual, or before the accident in *five* cases.

In *eight* cases it is spoken of in general terms.

Of *two* cases where the placenta was returned with the uterus in the operation of reposition: *one* had fatal hemorrhage; while in the *other* it was slight.

In *five* cases no hemorrhage occurred.

Convulsions occurred in *three* cases; all of which were fatal. Syncope in *twelve* cases.

Syncope, without hemorrhage, in *one* case.

The above closes the record of the more important symptoms occurring in the recorded cases. It is to be regretted that it is not more complete, but a careful revision has not enabled me to add anything to them. In the consideration of the phenomena of fatal and irreducible cases, other facts of importance will be deduced. I shall first, however, attempt a review of the causes of this accident, and shall, as far as the

facts in my possession enable me, endeavor to show the more usual causes of the dislocation.

Ten cases were attended by female midwives.

In *ten* cases there was undue traction on the funis.*

In *nine* cases there was a rapid labor.

In *five* cases the patient was delivered in the erect posture.

In *five* cases there was a short funis.

In *one* case it was perhaps attributable to sneezing, produced by snuff, given to accelerate the delivery of the placenta.

In *one* case it occurred on getting out of bed, on the third day.

In *one* case on leaving the bed on the fifteenth day.

In *one* while at stool, on the tenth day; and in *one* there was placenta prævia.

Of the circumstances bearing upon the treatment of the accident, the record is more full and satisfactory. I have already enumerated *twenty-one* cases as recovering after reposition.

In *four* other cases death occurred after the reposition of the organ.

Of the irreducible cases *thirty-three* became chronic, and *five* others died from consecutive circumstances. I defer the details until I speak of the treatment.

Of the *thirteen* fatal cases it is recorded that death occurred immediately and before the reposition of the organ could be effected, in *four* cases.

In *four* other cases, death occurred after the reposition of the uterus, and the remaining *five* deaths occurred in chronic cases.

REMARKS.—The twenty-three cases in which the number of the labor is mentioned, would indicate that the tendency to inversion decreases with the number of children which the woman has borne.

The proposition of first labors	is 1 in 2·55.
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“ “ second “	is 1 in 3·28.
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“ “ multiparous labors	is 1 in 5·83.
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Causes. The cause to which the inversion is attributed, varies very much in different cases. It is noticed that 1 in 6·7 were attended by female accoucheurs. As the proportion of labors occurring under the supervision of female attendants is undoubtedly much less than 1 in 6·7, it is probable that a lack of necessary skill and precaution were influential in producing the accident. But it is by no means fair to draw the inference

* Dr. Wm. Hunter estimated the circumstances under which traction on the funis may produce inversion very correctly, when he said that, “When a uterus is flaccid, it is inverted as easily as the finger of a glove; but when it is hard, globular, and contracted, it is as difficult to invert as a jackboot.”

that a want of skill is always, or even generally the cause. Dr. Meigs details a case, (the one mentioned as a *placenta prævia*,) in which after the delivery, the fundus came down, was easily replaced, but again came down, and speedily fatal. It will also be noticed, that nineteen of sixty-seven cases occurred immediately after the delivery of the child. In these cases it is difficult to suppose that any cause within the control of the attendant could have operated, except the erect position, which was mentioned in *five* cases. A short funis is another cause which is probably the most frequent of any, though only mentioned in five cases. The erect posture, combined with a short funis, would almost inevitably produce inversion. It is highly probable that the funis is the more frequent cause, from the fact that so large a portion of the cases had adherent placenta—1 in 3·53 of the entire number of cases are mentioned as adherent. As there is nothing in the adhesion itself to bring on inversion, we may suppose that it furnishes the condition necessary to make a traction on the cord, either accidental or intentional, the source of the dislocation. In 1 in 6·7 of the cases undue traction was made upon the cord. It is now the habit of many excellent and careful accoucheurs to deliver the placenta immediately. Without the usual and proper precaution of placing one hand upon the fundus of the uterus while making traction with the other, it is plain that the practice alluded to would be mischievous. With this precaution there can be no danger in prudent hands. Rapid labor is mentioned in nine cases. No mention is made in the records, of the quantity of amniotic fluid. In my own case there was an unusually large discharge of the waters occurring at the moment of delivery. The other causes enumerated are evidently exceptional. One inversion occurred on getting out of bed on the third day; one from the same cause on the fifteenth day, and one at stool on the tenth day.

Degree of Inversion. Only two divisions have been made in this analysis,—partial and complete inversion. Another division, or rather stage of inversion, has been made by some writers—that of depression. It is supposed that in those cases of inversion occurring at a length of time after placental delivery, a slight depression exists in the fundus, from the time of removing the placenta; that an inverted action of the uterine fibre being thus produced, it goes on gradually increasing the depression with each afterpain, until it at last becomes partial or complete. It is not improbable that this condition may sometimes obtain. The treatment proper for this stage would be the introduction of some firm instrument, like a rectum bougie, into the cavity of the uterus, and restoring the fundus,

to its natural shape by pressure from within. The operation would be a simple and easy one, but its necessity could not, as a general thing, be detected in time to make it useful.

By partial inversion is intended that condition when the fundus protruding through the os tincæ, the inversion is still incomplete, the os itself forming a ligating band about the substance of the organ. Of the *forty-one* cases in which the degree of inversion is noted, only *six* are mentioned as partial. It is probable that but few cases remain long partially inverted; they going on either to complete inversion, or to spontaneous reposition. That the latter is not impossible, is proved by a number of cases to be hereafter enumerated, and the argument to be drawn therefrom is, that it would not be judicious to do as recommended and practiced in one instance by a distinguished American accoucheur, who in a case of partial inversion, dragged down the fundus, and made it a complete inversion, in order to prevent ligation by the os.

Complete inversion is mentioned in *thirty-five* cases. It is thus evident either that the complete is by far the more common form of the accident, or that the partial form is not so often detected; a consideration of some probability, and likely to result unfortunately, for it does not appear that partial inversion is any more manageable in its chronic stage than is complete; and the consequences of the ligation by the os may be much more serious, producing much and obstinate hemorrhage, and, not unfrequently, gangrene of the excluded portion. It is probable that in all cases of complete inversion the uterus is at first protruded through the vulva. The displaced organ can, however, without difficulty, be returned within the vagina. In cases of complete inversion, the peritoneal surface of the displaced organ forms a cavity, in which are contained the ovaries and fallopian tubes, and sometimes portions of the intestine.

The internal or mucous surface is turned outward as we turn a glove. It forms a globular tumor, of a size proportioned to its recent character. It has a rough rugose surface, firm to the touch, and bleeding when handled.

Treatment. In one-half of the cases of inversion, the practitioner will find the placenta attached to the inner, and now conical, surface of the uterus. Should the placenta have been already removed or expelled, there is no doubt as to the proper course to be pursued. But when the placenta still remains adherent, there is room for discussion as to whether to replace the uterus with the placenta still attached, or to first detach it, and then reduce. The weight of authority is in favor of the former method of procedure. The argument adduced in its favor, is the danger of increased hemorrhage attendant on the

removal of the after-birth. In support of this argument are arrayed many of the most distinguished names in obstetrical science.

Burns says: "If the placenta still adhere, we should not remove it till we have reduced the uterus; after which we excite the contraction of the womb to make it throw it off."

Denman, after advising the removal of the placenta when only partially adherent, adds; "But if the placenta should wholly adhere, it would be better to replace the uterus before we endeavor to separate the placenta. The ground of this opinion is, that while we are separating the placenta the cervix of the uterus is contracting, and the difficulty of replacing it is increasing, which is a greater evil by far than a retained placenta."

Deweese (*System of Midwifery*, p. 456:) "If the placenta offers itself before the prolapsed fundus, we may, if detached, deliver it immediately; but if it be adherent, and the mouth of the uterus does not offer too much resistance, it must be carried up with the fundus, and separated as before directed."

Gooch (*Midwifery*, p. 273:) "First make an attempt to replace the uterus without separating the placenta from it; and if you succeed so much the better; then by external pressure and friction, excite the action of the uterus to separate and expel the placenta."

Besides the authors above quoted, Clarke, Carus, Newnham, and Blundell, record a decided protest against removing the placenta prior to the reduction of the displaced organ. All of them, however, admit that their method renders reduction more difficult, and in cases where the bulk of the placenta is such as to render its return impossible, they permit its removal.

On the other side of the question we find Bandelocque, Bolvin, Churchill, and Moreau. As my own opinion coincides with those last mentioned, I shall briefly state the reasons which govern my decision, and the facts from my analysis which bear upon it.

It is hardly probable that the placenta will in any case of inversion be found attached in its whole surface. The turning outward of the uterine cavity must necessarily detach it in some portion of its surface.

In *nineteen* out of thirty-seven cases in which the condition of the placenta is recorded, it was detached without recognizing the difficulty, or expelled spontaneously. It is not to be supposed that these placentæ were adherent.

In the *eighteen* remaining cases the placenta was adherent. In only *six* of these is it recorded that any attempt was made to return the placenta. *Two* of these attempts failed; in the

other *four* the placenta was carried up with the uterus. In *one* of these four cases, there was fatal hemorrhage after the reduction. In another, the placenta remained attached for four hours after reduction. In the *third* case, the placenta was not removed till five days after reduction. Of the *fourth* and last case, no record is made of subsequent difficulties.

It would seem from these facts, that whatever may be the danger of immediately detaching the secundines, their return is also a formidable operation, attended by great difficulty in performance, and when successful, leaving another and dangerous condition still present. Some of the facts in our analysis will go to show that the danger of hemorrhage has been greatly overrated.

In the first place, out of the thirteen deaths, only *four* died from hemorrhage.

Of these *four*, *one* died after the reduction of the placenta with the uterus.

One died *prior* to detaching an adherent placenta.

One died, the placenta being expelled previously to recognizing the accident.

One died from hemorrhage consecutive to removing an attached placenta.

Thus we have only *one* death in sixty seven cases, which can be attributed to detaching the placenta. The history of other fatal cases will—incidentally—farther illustrate this point in treatment.

The arguments thus adduced are :

First ; the attempt to return the placenta very much increases the difficulty of reposition.

Second ; when successful it leaves a formidable difficulty to be still encountered.

Third ; it does not decrease the danger of hemorrhage.

By removing the placenta immediately you avoid these difficulties without increasing the danger.

The placenta having then been removed, our next step is to replace the uterus. But here another difficulty, not mentioned by any author, may intervene. The hemorrhage may have been so great as to be of more immediate consequence than the displacement itself. There may be after-pains present in the uterus, offering a resistance to manipulation too great to be overcome. In my own case, both these happened. On removing the placenta I attempted immediate reposition, but the resistance of the after-pain was such as to render it impossible. The flooding, too, though much less than before the removal of the placenta, was still, in her exhausted condition, very formidable. I, therefore, during the delay previous to Dr. Flint's

arrival, directed my efforts to checking the hemorrhage, and restoring consciousness. This accomplished, the patient was in a much more favorable condition for reduction than a few minutes previously.

The hand is the best instrument for reduction. It is manageable and always present. Some writers have recommended the head of a walking-stick, a large bougie, or any other blunt, rounded instrument. Such an one would be liable to slip from the globular surface, and do injury to the parts, and has no advantage to compensate for this danger. Others have proposed that the hand itself should be shielded by a cloth—why, I do not know. First returning the uterus within the vagina, it should be carried bodily up until the vagina is “on the stretch.” At this point it has been advised by Mr. Newnham to “return first that portion of the organ which was last excluded from the os.” How this is to be done in *complete* inversion does not appear; in *partial* inversion it is possible, and is, I opine, the usual method of completing all reductions. When the fundus is returned within the os, the womb passes in its progress through all the degrees of partial inversion; and it is then convenient to pass the fingers above the everted lips of the os, and to press the excluded portion upward with the thumb. In all cases, the whole hand should be introduced. The pressure should be firm, and continued for some time, even if the os does not yield at first. Dr. Dewees has said that he does not believe it possible to return a complete inversion, though he adds that he cannot speak from positive knowledge. A complete inversion may be as readily returned as a partial one, provided there is not too great contraction of the os. Now complete inversion does not necessarily suppose such contraction. The os may be dilated to its fullest extent. The fact of inversion predicates a lax fibre, and very many cases of unmistakably complete inversion are recorded as reduced. The uterus having been restored to its natural position, the hand should be maintained within its cavity until contraction takes place. The after treatment does not require consideration here. Only one fact need be mentioned: I have found no case recorded where the patient died from subsequent disease, such as metritis, or peritonitis.

I have already enumerated a portion of the fatal cases—those which had any bearing on the question of removal of the placenta.

Death occurred immediately, and before reposition, in *four* cases.

One died from hemorrhage before the difficulty was detected. The placenta had been removed.

One from hemorrhage from an attached placenta, which was not removed.

One from hemorrhage subsequent to the removal of an adherent placenta.

One from "nervous exhaustion with slight hemorrhage."

Four deaths occurred immediately after reduction. One from hemorrhage, the placenta having been returned with the uterus; and three from convulsion. The remaining five of the thirteen deaths were in chronic cases. We have thus considered the principal features of the accident. Only one consideration remains—that of the period after inversion at which reposition may be effected. As time passes on, the uterus contracts, its parietes become thicker and firmer, and the os uteri is more closely contracted, and less readily dilated to admit the return of the excluded portion. Every consideration combines to make an immediate reposition desirable and necessary. The delay of even a few moments is to be regretted, while the passing of an hour may forever forbid replacement. An hour after the accident is considered a long time, and likely to make the operation unsuccessful. Dr. Locock speaks of having succeeded at the end of an hour and a half, in a tone which indicates a pleasurable disappointment. But lest the practitioner should be too readily discouraged, many cases of successful attempts at reduction are recorded at much longer periods. In recording these cases, I have, in most instances, preceded the length of time at which the reduction was effected by the name of the accoucheur. This I have done, that the character of the reporter may in some measure settle the credibility of the report. Dr. Ayer, of Boston, thirty-one hours; Dr. Merryman, "long afterward;" Dr. McCoy, 2 days; unknown reporters, 12 hours, 57 hours, 4 weeks. Besides these are the following cases from Churchill, which are not elsewhere included in this analysis: Suffler, 6 or 7 hours; White, 17 hours; Wynter, 24 hours; Dickenson, 27 hours; Cawley, 3 days; Dr. Radford, 7 days; Chopart and Ane, 8 days; Ingleby, 8 days; Lanverjat, 10 or 12 days; Hoin, 13 days; Dr. Belcombe, 12 weeks.

Churchill evidently considers these cases authentic. They are nevertheless exceptional cases, and should not be admitted in excuse for any delay of immediate reposition.

That the consideration of *chronic* inversion is not less important than that of the immediate accident, is evident from the fact, that of the sixty-seven cases enumerated, *thirty-two* were either irreducible or not reduced, and became chronic. The term chronic, though not strictly applicable, is still sufficiently descriptive. It means that condition which is expressed in the

word irreducible. I have no sufficient data for explaining *why* so large a proportion of the cases were not reduced. In many instances it is evident that the accident was not detected until so long a time had elapsed that reduction was impossible. In a very few it is stated by the reporters, that though the accident was discovered early, the condition of the organ, and especially of the *os uteri*, was such as to preclude reposition. We have already quoted the opinion of Dr. Dewees that a complete inversion is necessarily irreducible, and though we think it sufficiently shown that this is not even frequently the case, yet it is easy to conceive that there might be such a tonic contraction or rigidity of the *os*, as to preclude any possibility of dilating it sufficiently to replace the organ. In such a condition it is evident that no safe amount of force would result in success. I find reason to believe, from the different reports I have read, that most cases of the chronic form were insidious in their oncoming. The pain resulting from a simple depression of the fundus might easily be mistaken for after-pain of unusual severity; and this depression may go on through the various stages of partial, until at last it becomes a complete inversion. Or, supposing the displacement to be only partial, the true state of things would be very liable to escape detection until too late for any remedial measures.

Chronic inversion is not necessarily complete—it may be partial. To this latter form of the disorder I shall first direct my inquiries. A partial inversion would not protrude beyond the vulva. The physical signs of its presence would be a depression in, or entire want of the usual globular tumor over the pubis; while an examination, *per vaginam*, would reveal there a globular mass, protruding from the *os uteri*, and more or less ligated by it. Our attention should be directed to the possibility of inversion, by the presence of unusually severe uterine pain, of hemorrhage, of syncope and hemorrhage, or of syncope or convulsion, and of retention of urine. The sensations of the patient would be the same as those attendant on prolapsus *uteri*, but in a more aggravated form. If to these sensations we add the occurrence of syncope without hemorrhage, we should have sufficient reason to suspect inversion.

It has been remarked that partial inversion was, in some sense, a more important and dangerous accident than complete. From the greater degree of ligation by the *os*, there would be greater danger of hemorrhage, of strangulation, and of consequent gangrene. The hemorrhage, too, would be more uncontrollable. Added to this, the accident is less liable to detection, and is not in all cases more readily reduced than is the other form.

Relative to the treatment of partial inversion, there can be no great difference between it and that proper for the complete form. The greater liability to gangrene, however, makes a distinction which should not be overlooked. I find *five* cases in which gangrene occurred. Singularly enough, all of these resulted in what may be called a cure; that is, the cases recovered from this amputation by natural process, and regained a comfortable general health. I do not find any cases which were fatal from gangrene. An inference which may be drawn from this fact would go to prove that the proposition of Dr. Dewees, (and which in one instance he carried out,) to pull down upon an irreducible partial inversion, and render it complete, is not justified by the ulterior consequences of gangrene. It is to avoid gangrene that Dr. Dewees proposes this plan, but until a greater amount of evidence is furnished of the fatality of gangrene, the operation can hardly be justified. It should not be forgotten, however, that very many complete cases enjoy a comfortable degree of general health. Were it proven that the probability of regaining such a degree of health under complete inversion, is greater than the chance of a cure by gangrene, then the operation would be worthy of consideration. As yet, no sufficient data exist to decide this point.

But no case of partial inversion should be readily surrendered to either of the uncertain chances. Every attempt at reduction should be made. Methodical compression of the protruded portion should be employed, and all such local applications as would be likely to relax the constricted fibres of the os, and diminish the size of the vaginal tumor. Among these I would suggest, as most likely to be beneficial, the application of belladonna to the os. The hemorrhage should be controlled by the local use of astringents, and very firm and long continued pressure should be made.

The propriety of surgical interference will be considered under the head of complete irreducible inversion; and all other remarks as to treatment will apply to either form of the accident.

I find (aside from the five cases of cure by gangrene) that of the irreducible cases, *five*, or nearly one-sixth, terminated by *spontaneous reposition*. For a long time the possibility of this very fortunate occurrence was denied by authors, but the occurrence of two cases in France, and subsequently of three in this country, have placed the matter beyond a doubt. Few incidents in the self-instituted processes of nature for the cure of the disease are more interesting than this. Only the authentic sources by which the cases are furnished could convince us of the possibility of so great an effort to accomplish a restoration, not of function only, but of natural position, against so

many chances of failure. I trust I shall not be tedious if I devote some space to the history of these cases.

The first was that of Madame De La Barr, the wife of a surgeon of Beuzeville. Six months after the occurrence of inversion, this lady, in getting out of bed, fell upon the floor. At that moment she felt an extraordinary motion in her belly, accompanied by very severe uterine pain, which was followed by syncope. On recovering from this condition, it was ascertained that the uterus had returned to its natural position.

The second case is the famous one of Madame Boncharlatt, authenticated by Baudelocque. Madam B., after suffering for seven or eight years with inversion, consulted Baudelocque, who failed in an attempt to reduce it. On the evening preceding the day on which another attempt was to be made, her friends insisted upon her walking about the room. She struggled and fell upon the carpet, and immediately felt an unusual movement and pain in the uterus, followed by momentary unconsciousness. Baudelocque being called, found that spontaneous reposition had taken place. This woman, having recovered her health, subsequently gave birth to a child.

To come down to more recent times. In the Boston Medical and Surgical Journal, vol. XL, p. 277, Dr. I. C. Hatch, of Kent, Mass., communicates the case of Mrs. H., who had inverted uterus, the diagnosis being confirmed by Prof. Beers, of New Haven, who made an attempt at reposition. At the end of nine or ten months, Mrs. H. found that the tumor in the vagina had so changed its place "that she did not know what had become of it." She afterwards bore a child at full time.

Dr. Meigs also relates two cases of gradual and spontaneous reposition: one, after three years had elapsed; the other after, many months. Both these cases subsequently bore children.

We have thus disposed of *ten* of the thirty-two irreducible cases by spontaneous cure—*five* of them by gangrene, and consequent mutilation of the organ, and *five* by what we can only consider as a most remarkable accident—the spontaneous reposition of the organ, and its restoration to integrity of function, as proved in four cases by the occurrence of subsequent pregnancy. It may not be amiss to mention, in this connection, another case of remarkable interest, if there is no error in the diagnosis, or hiatus in the history. This case involves the possibility of conception taking place in an inverted uterus. The wife of Julian Rousin gave birth, in October, 1777, to a healthy child, but the midwife, in extracting the placenta, inverted the uterus. The tumor was merely returned into the vagina. Ten months afterward, she suspected herself pregnant. At three months, after a good deal of pain, she expelled

a considerable mass, which MM Thuilier and Vager recognized as an inverted uterus. For several days M. Vager tried to reduce it, but could not, and at last, by advice of MM. Thuilier and Paroifreu, he returned it to the vagina. Six days after, Madame Roussin expelled a fetus five inches in length. The woman was subsequently examined by M. Chevrue, who found the uterus still inverted. He supposed it a case of fallopian pregnancy. Probably such a case will never occur again, and there is much room to doubt the history of this case. No one but a midwife saw it till after the abortion. By supposing the original accident to have been prolapsus, the inversion to have occurred at the moment of abortion, the fetus to have remained in the vagina while the uterus pushed on through the vulva, and finally, the fetus to have been expelled by some casual movement after six days, and we have done away with all the mystery. Such is the explanation of this history offered by M. Moreau.

Two other terminations of inversion remain to be considered, first, using such means only as may tend to allay the inconveniences and dangers attendant on the condition; and second, the cure by operation.

Upon the measure of health and comfort attainable in the first mode of management, must depend, in some degree, the propriety of the operation. In a case related to me by Prof. James P. White, of this city, to which he was called some twelve or fourteen days after inversion had occurred, which was then for the first time detected, and had become irreducible, he resorted to such a treatment as it seems to me is most appropriate to such cases. The hemorrhage and discharges were controlled by astringent injections; the uterus was replaced as high up as possible, and maintained there by a pessary made of curled hair, inclosed in oil silk. The recumbent position was maintained until the parts could accustom themselves to this new condition; and finally there was a restoration to a very comfortable degree of health, so that the patient was able to attend to her ordinary household duties, and even to ride, occasionally, a distance of some miles, to this city. That such may be the result under judicious treatment, is evident from the whole history of chronic inversion. At the moment of the accident, the womb is in a condition of hypertrophy. Its enormous size can scarcely be contained within the vagina, and accordingly we find it generally extruded from the os externum, and lying between the thighs. At this time it is subject to frequent hemorrhage. The patulous orifice of the placental vessels are still unclosed, and at the slightest handling, pour out blood profusely. But after the uterus is returned to

the vagina, and is thus shielded from the air, and from irritating contact with surrounding substances, the ordinary and normal diminution of the uterus after parturition takes place; the lochial discharge is instituted, and finally the organ regains its natural unimpregnated size, and performs its menstrual function uninterruptedly. Dr. White tells me that he has seen the menstrual secretion oozing *guttatim* from the mucous surface. The data of irreducible cases are insufficient to say what proportion of them may result thus favorably. In a case read before the New York Medical Association, by Dr. Van Pelt, the uterus was, (owing to circumstances unnecessary to be mentioned here,) found on the morning of the fourth day after inversion, lying externally to the vulva, and so concealed in dry, hard clots, which had formed it, that Dr. V. P. could not decide on the nature of the accident until they had been softened by fomentations, and removed. This uterus was reduced. This case is quoted as showing the little danger of metritis which exists, and the gravity of accident which may be recovered from. In other cases, (two in number,) the patients are mentioned as living in comfortable health some years after inversion.

These facts and inferences have all a bearing upon the question of operation for the removal of the uterus. If the patient enjoys any comfortable degree of health, there should be no operation. The only circumstances under which the knife or ligature are justifiable, are those involving great danger to the patient's life. A case of inversion in which the organ had diminished to nearly its natural size, could present symptoms no worse than those of ordinary prolapsus. We believe that the knife has not yet been proposed for this latter displacement. The circumstances which militate against an operation are briefly these:

1st. The probability of the system's accustoming itself to the accident, and regaining a degree of health; 2d. The probability of spontaneous reposition; and 3d. The dangers attendant on an operation.

The data of this analysis which bear on the propriety of operation are as follows:—There were *thirty-two* irreducible cases. Of these, *five* terminated by spontaneous reposition; *five* by strangulation and gangrene, followed by recovery; *four* are recorded as successful cases of *ligation*; *six* are mentioned as "extirpated" successfully; and *four* cases of ligation were fatal.

It will be seen that *one in three and a half* of the cases operated upon, died. Of the *eight* cases remaining, there is no record except of the *two* already quoted as in comfortable health years

after the accident. I shall quote somewhat largely from the histories of these operations.

Of the *four* successful cases of ligation, *two* were tied, supposing them to be polypi. These, of course, are to be considered merely as fortunate terminations of unfortunate blunders.

The third of these cases is reported by Dr. Usher Parsons, of Rhode Island, in the Boston Medical and Surgical Journal, vol. xiv, p. 511. It was a partial inversion of four years' standing. There had been great suffering from alarming hemorrhage, leucorrhœa, nervousness, and uterine pain. The tumor was ligated just below the point of stricture, at the os tincæ. Four days after, the operation was completed by the knife and sissors. It resulted in a cure.

Of the fourth and last case of successful ligation, I have no record beyond the mere fact of the operation.

Of the *six* successful cases of "extirpation," it is not stated whether the knife or ligature was used. One of these was extirpated on the fourteenth day after labor, by an English surgeon—a most unjustifiable and ignorant proceeding.

Of the *four* cases of unsuccessful ligation, *one* was ligated immediately after delivery, the uterus being mistaken for a tumor in which the placenta was implanted. On the eighteenth day after, she was admitted into Boyer's ward at LaCharité. Seven days after, the ligated portion came away, and she died a few days later.

Another case was also ligated by mistake, six months after inversion. She died five days after the operation. The *two* remaining cases died of peritonitis occurring after the operation.

Thus of *fourteen* cases in which surgical interference took place, *ten* recovered and *four* died. Of the *four* who died, the operation was performed in ignorance of the true condition of the parts in *two* cases—a fact which would have more weight were it not that *two* of the successful operations were also in the same category of surgical blunders.

No record of amputations of the womb would be complete without some mention of Mr. Crosse's tables, collated with especial reference to the success of this operation. It is probable that some, perhaps most, of the cases I have recorded, are also included in Mr. Crosse's statistics. A portion of them, however, are too recent, and too little known to have found place in his records.

Mr. Crosse has collected thirty-three cases of operations, from various sources—*nineteen* cases were treated successfully by ligature; *five* were treated unsuccessfully by ligature, of which *three* died; *one* case was treated successfully by excision; *two* cases of excision were unsuccessful; and *five* cases

successfully, and *one* unsuccessfully, by ligature and excision combined.

Thus the average of unsuccessful cases according to Mr. Crosse, is *one in four and one-tenth*. The average of my analysis is more fatal, being of fatal cases *one in three and five-tenths*. Adding the two together, we have twelve deaths in forty-seven operations. One circumstance should be mentioned: In very few of the cases, (I think in only one—that of Dr. Parsons,) is it recorded whether the inversion was partial or complete. I consider this an important point. In removing a portion only of the uterus, as in partial inversion, the danger would be much less than in the complete form. In the former case, the operation being always performed just below the point of ligation by the os, the integrity of the peritoneal cavity is not at all invaded, except at the point where the peritoneum forms the lining membrane of the abnormal inverted cavity of the uterus. The ligation by the os would effectually prevent the effusion of blood, or check the progress of inflammatory action into the peritoneal sac. But in complete inversion the converse of these propositions holds true. The peritoneal cavity is largely invaded, and there is nothing above to check effusion.

I have thus completed the consideration of this subject. It has been extended to greater length than I had at first anticipated; but the reader will readily appreciate how it is that a subject widens and extends as we investigate. Some sources of error exist in this analysis. The literature of *inversio uteri* is scattered through many books and periodical journals. Many of the records are unsatisfactory—some perhaps are false. I have admitted nothing as a fact that was not distinctly stated as such, while I have taken it for granted that all the records were originally written in a spirit of truth.

There is another source of error. How many cases of inversion have died unrecognized, and been recorded only as sudden and fatal floodings, convulsions, or syncope, no one can tell. How many which have been recognized, have been concealed, or not reported, is also unknown. The impulse which we feel to report a successful case, and our repugnance to immortalize our failures is so natural, that it not unfrequently detracts from the relative value of our statistical records. But from these records, such as they are, I have drawn the following conclusions as to the causes of inversion, its treatment, and its terminations:

The liability to inversion decreases, but not to any marked degree, with the number of children which the woman has borne.

That no one cause can be assigned as universal, but that the complication of a short funis with a rapid labor, the erect pos-

ture when delivered, and a large quantity of amniotic fluid, are the conditions most frequently present as causes.

Inversion may occur without neglect, or undue interference on the part of the accoucheur.

The placenta is adherent in a large proportion of the cases.

When adherent it should be removed prior to any attempt to reduce the inversion.

Such removal of the placenta does not increase, but rather decreases the risk of hemorrhage; while it facilitates reduction.

The returning of the placenta in reducing the inversion complicates the after treatment, and adds to the danger of hemorrhage, while it retards and renders difficult the reduction.

Hemorrhage does not occur to any more fatal extent than does convulsion or syncope.

All cases in which convulsion occurred were fatal.

There is little danger of metritis occurring after reduction.

Reduction increases in difficulty with the length of time which elapses before it is attempted. Partial inversion is less easily detected, but more readily reduced than complete.

No operation for extirpation should be resorted to until it is evident that life is endangered.

A sufficient number of cases occur in which either gradual diminution in the size of the organ, or spontaneous reposition occur, to justify and demand a delay of any operation for extirpation, until it is urgently called for by the imminent danger of the patient.

The operation by ligature, involves less danger than that by excision, and is therefore preferable to it.

An operation is more frequently necessary in partial than complete inversion, and is at the same time less dangerous.

Finally, under judicious local and general treatment, an inverted uterus may often exist for many years without great loss of locomotion or of usefulness, and with a comfortable degree of general health.—[*Buffalo Med. Journal.*]

There is no plan so well adapted to improve our knowledge of diseases, and consequently to enable us to estimate properly the value of therapeutic means, than that of studying them without the perturbing influences of medication. As in the study of natural history we select specimens in their normal and undisfigured condition, so in endeavoring to determine the true characteristics of diseases, we should examine them in their state of nature, and neither deformed nor transformed by

the interference of art. The *natural history of diseases* is what we need. The French school has done much toward this, and the Homeopaths, who have honestly carried out their doctrine, have taught us some valuable lessons on the subject. We cheerfully give place to the subjoined researches of a Belgian practitioner.—[EDITOR.]

*Of the Expectant Method pursued at the Military Hospital of Antwerp, in the Treatment of Acute Articular Rheumatism.** By J. DEWALSCHÉ, Adjunct Physician to the Hospital. (Translated from the Archives Belges de Médecine Militaire.)

I propose in this essay to make known the method pursued by Dr. Gouzée, in the treatment of articular rheumatism, and the results which he obtains by it. This subject is not without interest, there being no acute disease in regard to the treatment of which the opinions of physicians are more divergent than this. Unanimous in their judgment of the gravity, long duration, and the danger of the complications of rheumatism, they all teach that it should be opposed energetically; but disagreement arises as soon as it becomes necessary to select the therapeutic agents which shall be employed. Some can only see safety in repeated venesections, others recommend active medicines, to be given in large doses usually, and each one boasts of the preëminent advantages of his own plan.

Imbued with these notions before my arrival, in 1847, at the Military Hospital of Antwerp, it was not without terror that I saw M. Gouzée employing an expectant treatment in the most intense cases of febrile articular rheumatism. This dismay was converted into astonishment, when I observed that his patients recovered more rapidly than those I had previously seen subjected to the ordinary methods.

Yet Dr. Gouzée had already made known his plan of treatment. In a report of his clinic for the second quarter of 1843, that eminent practitioner writes as follows:

"Of late years, there have been recommended the most violent and disproportionate modes of treating acute articular rheumatism. Tartarized antimony, nitrate of potash, blood-letting, opium, iodide of potassium, and sulphate of quinia have been employed in frightfully enormous doses; and, surely, it cannot be asserted that a large proportion of the patients subjected to these various methods of treatment

* I have been astonished that physicians who have endeavored to appreciate the value of the different modes of treatment recommended in articular rheumatism, have never examined into the course of this disease uninfluenced by remedies. The memoir of Dr. Dewalsché in part supplies this want, and furnishes instructive facts bearing upon this capital point.—[Note by M. MALGAIGNE.]

have been cured *cito, tuto, et jucunde*. It is even said that sulphate of quinia, administered in Rasorian doses, has occasionally jugulated the patient instead of the disease.

"I have long employed a simple expectant treatment in this disease, and a year has never elapsed without my having cause for astonishment at the facility and promptitude with which my patients recovered."—(*Archives Belges*. Jan. 1844, p. 7.)

Since that time Dr. Gouzée has occasionally recurred to this topic, and I had believed that his opinions were generally known and appreciated, until the perusal of recent scientific publications, and a late discussion in the Academy of Medicine of Paris convinced me that they had not attracted all the attention they merited. I believed then that it would not be unprofitable to report some cases of rheumatism treated on the expectant plan. If they do not convince practitioners of the incontestable superiority of this method, they may at least, by making known the natural progress of rheumatism left to itself, serve as points of comparison, from which the degree of efficacy of the various means recommended in this disease, may be deduced.

M. Gouzée's treatment is most simple. The gentle, equable and continued warmth of the bed, in a pure and temperate atmosphere; and a mild drink, taken warm or cold, according to the patient's taste, but always in great abundance. If the articulations of the superior extremities are particularly affected, the arms are placed in bathing-pans of warm water twice a day, and are allowed to remain one or two hours, the rest of the body being carefully covered; these local baths are sometimes used for the lower extremities, but, in this case, their employment is attended with many difficulties. The local baths moderate pain and swelling, procure general relaxation, favour perspiration; they do not fatigue the patients, or necessitate painful movements, or permit the surface to be chilled as it is after general baths, which M. Gouzée never employs. During the intervals, the affected parts are covered with cataplasms or with sheets of cotton-batting. After the pain in the joints has disappeared, the patient should still remain in bed for several days, until the disease is completely dissipated. At this period M. Gouzée no longer insists upon a severe diet; experience has taught him that a substantial diet, accompanied by some bitter tonic, by a decoction of bark, or solution of quinia, are generally of great utility towards the termination of rheumatism, in procuring a more prompt and complete cure, and in preventing relapses.

Here is an example of the rapidity with which rheumatism, of very considerable intensity, may subside under the influence of the simplest means:—

CASE I.—Torfs, (cornet au 3e chasseurs à pied,) 20 years of age, never having had any sickness, entered the military hospital of Antwerp, June 27, 1850. For three days he has experienced pain and stiffness in the joints, with a febrile movement in the evening.

June 28th. Swelling, heat, pain, and slight redness of the knees and ankles. The pain is greatest in the right knee; the countenance is animated, the cheeks flushed, the pulse at 100, the skin hot and dry; no sleep; nothing abnormal in the sounds of the heart. (*Copious diluent drinks. Diet.*)

June 29th. Abundant sweats all night. The pain has left the lower limbs, which remain stiff, and has invaded the wrists, which are red and tumefied; the slightest movement of the arms is insupportable. The shoulders are also painful and swollen. (*Arm-baths, twice.*)

June 30th. The same copious sweating during the night, sleep, moderated pain, less swelling, pulse at 84. (*Same treatment.*)

July 1st. There is scarcely any pain, the pulse has fallen to 76, the nocturnal perspiration continued. (*Continued repose in bed. Broth.*)

July 2d. The patient can move the articulations of the arm; he experiences pain about the scapula. The diaphoresis has become constant.

July 3d. No pain, pulse at 60, nothing abnormal about the heart. The patient leaves his bed. (*Improved diet. Eggs.*)

A slight diarrhœa supervened upon the 5th, but readily yielded to a sweetened solution of salep, with syrup of white poppies.

July 7th. A solution of six grains of sulphate of quinia was prescribed.

July 10th. The temperature fell in consequence of a cold wind. The patient experiences vague pains in the knees and in the right shoulder. (*Repose in bed.*) The pains passed off the following day, and convalescence was fully established on the 12th. Four grains of sulphate of quinia was administered, and a more liberal allowance of food.

The patient left the hospital on August 1st.

This case presents an instance of rheumatism, accompanied by a febrile movement from the onset, a great number of articulations being involved at the same time, and nevertheless a cure was obtained with wonderful rapidity, since convalescence was established on the sixth day of the treatment, and the ninth day after the invasion of the disease. Surely no one will pretend to procure a more prompt and satisfactory result, from any mode of treatment.

The following observation is not less remarkable:

CASE II.—Vandeputte, cannoneer in the 4th artillery, 21 years of age, robust, of strong constitution, entered the Military Hospital of Antwerp, January 17th, 1851. Two days before, while on duty, he had experienced acute pain in the left hip, which became so violent, that upon the following day he was unable to walk.

January 18th. The pain in the hip was gone. I found the ankles hot and swollen, and very painful. No sleep; pulse full and calm, temperature of the skin normal. (*Repose in bed. Common ptisan. Two soups.*)

Jan. 19th. Same state, except that the right knee is painful, but without tumefaction.

Jan. 20th. The tibio-tarsal articulations are free; the pain in the knee continues. The patient has slept well.

Jan. 21st. The pain in the knee has diminished. (*Same treatment. A little solid food.*)

Jan. 22d. The pain has left the knee, and has invaded the right shoulder; it is intense, and prevents any movement of the arm; no sleep; pulse at 78. (*Same prescription.*)

Jan. 23d. The pain is transferred to the left wrist and elbow, and to the joints of the right middle finger; the latter are red and tumefied. Pulse 74. (*Arm-baths, twice.*) Moisture of the surface has been present since the entrance of the patient into the hospital. There is no thirst; the stools are regular; the viscera of the chest are exempt from any complication.

Jan. 24th. The weather, hitherto mild and beautiful, became cold; wind from the northwest. The left knee and wrist are red, hot, tumefied, and so painful that the patient has not slept. Intense fever, thirst, pulse at 100, skin hot but moist. The patient complains of a pain under the right nipple, and coughs, and expectorates some mucous sputa. Nothing abnormal upon exploring the chest. (*Same local baths. Absolute diet.*)

Jan. 25th. The pain, diminished in the knee, entirely gone from the elbow, has invaded the fingers, which are swollen; pulse at 84; less cough. (*Same treatment. Soups.*)

Jan. 26th. The two wrists are still stiff and swollen, but there is no pain any where. The cough has been troublesome, and has kept the patient awake; pulse 88. (*Same treatment.*)

Jan. 27th. Much less cough, sleep tranquil, no pain, pulse at 66.

Jan. 29th. No more cough; the swelling and stiffness of the wrists has gone. The patient walks about the ward. (*Sulphate of quinia, grs. iv.; water, ℥iv.; simple syrup, ℥j. A spoonful every two hours.*)

Jan. 30th. The patient was allowed solid food. Towards evening there was a storm; the mercury descended very low in the barometer; during the night the pain returned in the left shoulder, elbow and wrist, and continued on the 31st. (*Arm-baths.*)

Feb. 1st. There is no longer any pain. The patient has a good colour and complexion, and but little loss of strength; the convalescence continues, notwithstanding the frequent atmospheric changes. The diet is gradually increased.

He left the hospital on the 6th of March.

In this case, the patient was young and vigorous, as our cannoneers usually are: he was suffering from a shifting articular rheumatism, which had only lasted two days. The circumstan-

ces, in the eyes of a partisan of bloodletting, would have been so many indications for frequent and copious abstractions of blood. Nevertheless, we see that the disease pursued its course without accidents, and terminated in twelve days, with scarcely any treatment, leaving neither feebleness nor anæmia behind it, and having lasted only two weeks altogether.

The two preceding facts confirm the results of the observations to which Dr. Gouzée has long devoted himself, in regard to the great influence which the state of the atmosphere exerts upon the progress, duration, and intensity of the majority of diseases, and especially of acute articular rheumatism. This latter affection is readily exasperated by sudden meteorological changes, and particularly by east or northeast winds, which, in our climate, render the atmosphere dry and cold; under the influence of the mild and humid weather which accompanies southern and western winds, patients with this disease usually amend rapidly. Therefore M. Gouzée deems it important to carefully note, in giving the history of diseases, the meteorological vicissitudes which may have occurred, in order that we may better understand the effect that remedies have had independently of those powerful influences of external agents, which are usually so little regarded.

CASE III.—Panhuyzen, a soldier of the carbineer regiment, aged 23, of sanguine temperament, entered the hospital on the 4th of May, 1852, having arrived from the camp at Braschaert. For two days past he has had acute pains, shifting from one articulation to another.

May 5th. The two feet, but particularly the left, are painful, red, and swollen. The general suffering is considerable. Sleeplessness, flushed face, frequent pulse, skin moist. The heart's sounds are normal. (*Free drinks, cataplasms, loco dol.*)

May 6th. Same pains, abundant sweats, pulse at 90.

May 7th. Sweats continue abundant, less pain, sleeps well.

May 8th. Feet are free; right wrist attacked, sweats. (*Arm-baths.*)

May 11th. Left wrist involved; pulse at 80, less perspiration.

May 12th. Suffering much diminished.

May 14th. Convalescence, the patient leaves his bed. (*Improved diet.*)

He left the hospital on the 25th.

CASE IV.—Boston, a soldier in the 1st artillery, 21 years, robust and sanguine, has never been sick previously. On July 2d, 1852, having got wet while on duty at Braschaert, he was taken with a chill, followed by a fever. The next day, pain in the joints of the inferior extremities. He was transported to the hospital on July 4th.

July 5th. The two knees and the left foot are swollen, red, and painful. Face animated, pulse frequent, sweat copious, heart's sounds normal. (*Repose, drinks, diet.*)

On the following days the fever gradually diminished, the pain and swelling continue in the left knee. (*Raw cotton.*)

On the 10th, convalescence; exit on the 12th.

I have no remark to make on the two preceding cases. The following observation is more important, both on account of the intensity of the disease, and of the existence of a bellows sound at the heart.

CASE V.—Jods, soldier in the 3d foot chasseurs, 21 years, lymphatic, but with a tolerably good constitution, suffered a year since with acute articular rheumatism.

On the 3d of June, 1851, after being on duty all night, he had a violent chill, accompanied by pain in the lumbar region. This was treated, at his quarters, by a saturnine lotion, but persisted until the 8th, when the articulations of the extremities became involved. On the 9th he was brought to the hospital.

June 10th. I found the ankles and the right wrist swollen, red, hot, and very painful. The patient could not sleep on account of his suffering; the pulse, at 104, was incompressible; the skin was hot and moist. Auscultation discovered a loud murmur, amounting almost to a rasping sound, in place of the first sound of the heart. The existence of this symptom, which was particularly apparent towards the left side of the heart, was verified by Dr. Gouzée. The patient had no præcordial pain, or oppression, the dullness of that region was not augmented, and the lungs were healthy. (*Repose in bed, arm-baths, diet.*)

June 11th. The right knee is slightly tumefied, and very painful, the other articulations are in the same condition as yesterday. The abnormal bruit of the heart continues; the pulse is regular at 88; an abundant diaphoresis is established. The patient has slept well. (*Same treatment.*)

June 12th. The pain in the ankles has disappeared, it is diminished in the wrist and knee; the joints of the toes of the right foot are congested and painful. The murmur of the heart is less rude and not so loud; the sweating continues; no stool for four days. Altogether, the patient suffers less. (*Same treatment.*)

June 13th. The patient feels so well that he believes himself cured. All the articulations heretofore affected are free. Slight pain in right shoulder. *Bruit de râpe* diminished, pulse at 84, sweat, two natural dejections. (*Continue in bed, diet.*)

June 14th. No pain anywhere, pulse at 74, heart's sounds are normal; M. Gouzée, however, believes that he can detect a slight trace of the murmur which has masked the first sound. (*Repose; soup; rice and milk.*)

June 15th. Pulse 64. All the functions are well performed.

June 16th. Dr. Gouzée considers the heart's sounds normal. The patient took a solution containing four grains of quinia, which was repeated the next day. His diet was gradually improved. This soldier resumed his duties on the 1st of July.

What was the semeiological value of the abnormal cardiac murmur observed in this patient? Was it the sign of acute endocarditis? Was it the result of an organic lesion which occurred during the antecedent attack of rheumatism? The question is difficult. I do not know how those physicians who consider the bellows murmur which occasionally supervenes during the course of articular rheumatism, a sufficient sign in itself of the existence of acute endocarditis, can explain it. The absence of præcordial anxiety, oppression, and pain, the regularity of the pulse, and the fact that only a normal degree of dullness existed, inclined us at first to believe that this murmur depended upon an old organic lesion. Therefore we expected that it would continue after the cure of the rheumatism. Nevertheless, it diminished rapidly, and finally ceased almost as soon as the disease of the joints, without any medication having been employed against it. This unexpected result induces us to think that the murmur should be attributed to some other cause.

This fact had already been remarked. M. Gouzée who had observed it frequently, published some reflections upon it in the essay we have already cited: "In one patient, he says, there was a bellows murmur accompanying the first sound of the heart, which disappeared during the convalescence. There are two curious questions, in connection with this murmur, which will be decided at some future day, when the prejudices of the day have subsided. These are: whether the endocardial murmur is as frequently the expression of an endocarditis, as some physicians imagine; and, secondly, whether certain modes of treating rheumatism have not great influence in the production of this sound." More recently, in 1851, Dr. Hart, a regimental surgeon, has made known a similar case, in an essay published in the *Archives de Médecine Militaire*. It remains to find an explanation of these curious facts. Does the endocardial murmur depend upon a change in the composition of the blood?

"It has been asked, say the authors of the *Compendium de Médecine Pratique*, (art. *Auscultation*,) if the peculiar murmurs which characterize anæmia and chlorosis are not due to a modification in the composition of the blood. Then, from a generalization of this idea, it has been suggested that if the blood, when it has become more fluid and less abundant, produces, in circulating through the vessels, murmurs that are not observed when it is endowed with its normal qualities, perhaps, by an inverse modification, when it is more plastic, richer, more consistent, more abundant, it may occasion analogous murmurs. This would lead to the following conclusions: 1. The bellows murmur may be the result of a diminution in the quantity of the circulating fluid; 2. It may be the result of an increase in the quantity of blood in circulation; 3. The bellows murmur may sometimes indicate an

abnormal fluidity in the blood ; 4. It may also characterize an augmentation in the plasticity of the blood ; in a few words, any notable change in the quantity or quality of the blood contained in the cavities of the heart, may produce a modification in its sounds. Then it would be established that, *if the bellows murmur frequently occurs as a coincident phenomenon in articular rheumatism, it is proper to attribute this circumstance to the well known alterations presented by the blood in that disease.*"

These propositions are not demonstrated, any more than is the fact of the existence of endocarditis under the same circumstances ; but, as the authors just quoted remark, they begin to have supporters.

Let us not forget to remark once more the rapidity of the cure in this case. Notwithstanding the intensity of the disease, convalescence was established in less than a fortnight.

CASE VI.—Warnier, quartermaster in the 1st artillery, 23 years of age, brown hair, brown skin, face habitually florid, has suffered from three intense attacks of articular rheumatism since January, 1846. The first was treated by depletion at Gand, the second at Antwerp on the expectant plan, and the third at Bruges.

The 10th of June, 1850, being at the polygon of Braschaert, he was seized with pain in the inferior extremities, and went to bed.

On the 15th, the pains became more intense, and fever came on. The following day he was carried to the military hospital at Antwerp.

June 17th. Wrists red, very much swollen, very painful upon the slightest movement ; left knee tumefied and slightly painful ; pain in the neck, in the shoulders, and in the back and sides ; face very much flushed ; pulse at 112, regular but not very full ; slight murmur accompanying the first sound of the heart, most apparent just beyond the nipple ; diarrhœa since the 12th. The wind is north, and the weather cold. (This state of the temperature lasted until the 28th.) *Arm-baths, gum water with syrup of poppies, diet.*)

June 18th. The condition of the wrists is improved ; the left knee and right instep are affected ; the pains about the trunk are ameliorated ; pulse at 90 ; same murmur at the heart ; abundant sweat ; more diarrhœa. (*Arm-baths, broth, rice and milk.*)

June 19th. Slept well, right wrist still swollen, vague pains in the fingers ; left knee and right foot are free. (*Continue in bed, diluent drinks.*)

June 20th. There only remains a slightly painful tumefaction of the right wrist, and a little uneasiness about the sternum ; the diaphoresis continues ; pulse at 80, cardiac *souffle* less loud, countenance natural ; stools normal.

June 21st. The wrist, knee, and fingers are stiff but not painful ; pulse at 75 ; the patient walks in the gardens. On the 22d all of the articulations were free, and all of the functions were well performed. There was still a slight endocardital murmur.

After the 25th, the bellows murmur gradually diminished ; on the 30th, it was no longer perceptible. The patient left the hospital on the 6th of July.

In this patient there was a marked progressive amelioration, notwithstanding the most unfavourable atmospherical circumstances. As in the preceding case, the murmur which existed in the cardiac region subsided gradually and spontaneously. Nothing proves that these patients were the subjects of acute endocarditis, because, in the first place, the simple occurrence of a bellows murmur should not be considered pathognomonic of that affection, and, secondly, because this phenomenon disappeared of itself almost simultaneously with the cure of the rheumatism, which would not have been the case if it had depended upon a phlegmasia of the internal membrane of the heart. If, admitting the existence of that phlegmasia, we had instituted an active antiphlogistic treatment, it is probable that the venesections would not have prevented the cessation of the murmur. Then, the cure of a redoubtable complication would have been attributed to energetic medication, whereas the efforts of nature, seconded by careful nursing, were quite competent to set every thing in order.

We could easily multiply cases, but we believe that those which we have already cited are sufficient to justify the following conclusions :

1. Acute articular rheumatism has a natural tendency to terminate in the course of one or two weeks.

2. Treated on an expectant plan, by simple hygienic and diétetic precautions, it pursues its march without danger, and ceases as soon, if not sooner, than when combatted by active measures.

3. It is not proven that the active treatments recommended in this disease are useful or even innocent.

4. The cardiac murmurs which are frequently observed during the course of rheumatism, disappear spontaneously in the great majority of cases, in proportion as the disease ameliorates, and under the influence of the simplest treatment.

5. It is far from being demonstrated that these sounds are always the sign of endocarditis.—[*Virginia Med. and Surg. Jour.*

New mode of Operating for Strabismus by a Temporary Ligature. By M. TAVIGNOT.

M. Tavignot sent in a memoir, the object of which is to explain a new method of operating for strabismus. This new operation is founded on the following idea, that instead of lengthening a muscle supposed to be too short, you must short-

en a muscle in reality too long. Instead of leaving the eye to oscillate with difficulty, and sometimes sluggishly, between two muscles, one of which is mutilated by a section, and the other remains always more or less powerless, my method of operating, says the author, attacks the longest muscle, and not only shortens it by a sufficient length to equal that of its antagonist, but it furthermore acts by increasing its physiological contraction.

First Operation.—The longest muscle—that is to say, that one which is opposed to the deviation being exposed in the ordinary manner for strabotomy, the operator proceeds in the following manner: A blunt hook, with an eye at its extremity, is passed underneath the muscle, so as by lifting it up to detach it from the globe of the eye. The hook is then carried forward, so that its concavity embraces the muscle at a little distance from its aponeurotic expansion. A thread of silk is then passed through the eye of the hook, then the hook itself is brought towards the operator, leaving the ligature under the muscle. By a double twist of the ends of the thread on one another, a simple, yet very resisting, knot is obtained. There only then remains to finish the operation, to tighten the knot, and cut away one of the ends of the ligature. The other end is brought to the corresponding angle of the eye and fixed to a spot on the circumference of the orbit.

The first effect of this ligature is to render the lateral fibres of the muscles more central, and thus to bring about a shortening of this organ. The second effect is to develop an adhesive inflammation, which not only fixes permanently the abnormal juxtaposition of the muscular fibres, but also establishes adhesion between the muscle and subjacent sclerotic membrane.

The ligature not being intended to produce division of the muscle, must consequently be only temporary. Towards the end of the second, or beginning of the third day, it can be easily taken off by means of a gentle traction carefully applied to the end which remains.

This first operation may not in all cases produce the effect which we have described. Very severe strabismus will no doubt prove refractory. It is at least with this idea that I have devised a way of making it more efficacious.

Second Operation.—The hook having been passed under the muscle, as in the preceding case, the ligature is passed, not directly under the muscle, but under the hook, so as to embrace the muscular expansion.

Before going further, it must be discovered by a momentary constriction if the globe is perfectly restored to its normal position. To prove experimentally that the ligature has effected

the required degree of shortening, we must proceed, during the operation, in the following manner : The ligature being passed once under the hook, a different colored thread must be passed through the loop thus formed, then constriction is made by means of the first-mentioned ligature, but taking care to make only one knot, and to make it a single one only. The hook is then withdrawn, and the eye left to itself. The changes in its direction can now be judged of accurately. If the globe is not brought back sufficiently, a larger quantity of muscular tissue must be embraced by the ligature ; if the globe is too much brought back, a lesser quantity of muscular tissue must be enclosed ; but in either case the ligature already put on must be withdrawn as soon as possible. Owing to the precautions we have adopted with this view, nothing is more easy ; the eye being fixed, one end of the ligature is drawn with one hand, while the other hand pulls the thread passed through the loop of this same ligature. The knot gives way immediately to this opposed extension. There only then remains to pass the hook again underneath the muscle (if it has not been already done before taking away the ligature) and recommence the operation, keeping in mind the data furnished by the first trial.

[*Dublin Med. Press*, from *Presse Méd. Belge*.

EDITORIAL AND MISCELLANY.

Transactions of the fourth Annual Meeting of the Medical Society of the State of Georgia, held in the City of Savannah, April, 1853.

The "Transactions" of our State Medical Society were received too late for notice in our last. It is to be regretted that this publication, comprising only about one hundred pages, should have been so long delayed, and that its typographical errors are so numerous as very seriously to impair its value. Typographical errors involving orthography only are of but little importance ; but when they are such as to affect the writer's meaning, as is frequently the case in the work before us, they misinterpret the author and mislead the reader. In order to show that we are not unnecessarily captious, we will direct attention to some of the errors noticed in *one* alone of the articles. On page 37, we find "the necessary *influence*" instead of the necessary *inference* ; page 38, "In *established* rules of practice" instead of In *establishing* rules of practice ; "be *discontinued*" for be *dis-*

countenanced ; "process" for processes ; "extensive" counter extension, &c." for extension, counter-extension, &c. ; "material" for materials. On p. 39, "their compress" for thin compresses ; "from the end of the arm" for from the bend of the arm. On p. 41, "compress" for compresses. Yet, in the errata placed upon the cover, there is but one of these errors noticed !

We really feel mortified at the justness of the criticisms of the newspapers upon the artistic imperfections of the work, for, intrinsically, it is decidedly creditable to the contributors of its matter. It contains, besides the minutes of proceedings : Report A, by Dr. R. Q. Dickinson, on the existing Laws of Georgia relating to the Practice of Medicine ; Report B, by Dr. P. M. Kollock, on the Topography and Prevalent diseases of the 1st Congressional District, during the past year ; Report C, by Dr. G. F. Cooper, on the Topography and Prevalent Diseases of the 3d Congressional District, during the past year ; Report D, by Dr. L. A. Dugas, on the best plan of treating Fractures in country practice ; Report E, by Dr. R. C. Word, on the Topography and Prevalent Diseases of the 5th Congressional District ; Dr. R. D. Arnold's apology for not presenting a Report upon the subject assigned him ; a Communication from Dr. T. W. Bell, on the use of Sulphate of Cinchonia ; a Biographical Sketch of the late Dr. Waring, by Dr. C. W. West ; a Biographical Sketch of the late Dr. Baber, by Dr. C. B. Nottingham ; and the Annual Address, by Dr. J. Harriss.

The excellent Report of Dr. Dickinson will be found very useful to the profession in Georgia, who are not unfrequently at a loss with regard to the laws now in force. The following are the author's conclusions :

"From the various enactments previously referred to in this report, and the preceding decision of the supreme court, we very confidently conclude, that no person is authorized to practice medicine or surgery in Georgia, for 'fee or reward,' except,

"1st. The licentiates of the Medical Board.

"2d. The graduates of the Georgia Medical College.

"3d. Those engaged in practice, *in this state*, in 1839.

"The licentiates of the Botanico Medical Board—the graduates of the Botanic Medical College, and those engaged in the practice of this exploding humbug in 1847, are authorized to continue to practice this system.*

*The Legislature at the session of 1851-'2 passed special Acts authorizing a round dozen of individuals named, to practice on the Homœopathic system, and one (Robt. C. McCulloch,) to pursue the "Dutch or Indian practice."

"All apothecaries and druggists who have been licensed by the Medical Board to sell drugs and medicines, and all who were engaged in the business in 1839 (when the act of 1825 was revived under its enlarged title) are legally authorized to pursue the business. And 'merchants and shopkeepers' are authorized to 'sell medicines already prepared.'

"By an Act passed in February, 1850, it is enacted, 'That, from and after the passage of this Act, it shall be lawful for every physician and surgeon who shall be summoned by the sheriff or coroner of the county, to make post mortem examinations for the information of Juries of inquest; to charge and receive from the treasurer of the county the sums, (following) to wit: For each post mortem examination, where death has resulted from external violence, where no dissection is required, the sum of ten dollars; for the same where dissection is necessary, and where no interment of the body has been made, twenty dollars; for the same, after one or more days interment, thirty dollars; for the same, where any chemical analysis is required, the sum of fifty dollars, and the expense of such analysis: Provided, that the compensation allowed in this Act, shall not extend to more than one physician for each post mortem examination.'

"It is also enacted by the penal laws, (Cobb's Dig. p. 816) that any physician, surgeon or other person, wilfully endeavoring to spread the small pox, without inoculation, or by inoculation with matter of the small pox, or using any other inoculation than that called vaccination, unless by special commission or authority from the inferior court of the county where the small pox shall make its appearance, shall be indicted, and on conviction, fined in a sum not exceeding \$1,000, and be imprisoned in the common jail, at the discretion of the court."

The following "Suggestions for Additional Legislation" are very judicious:

"In view of the very little regard manifested for the laws now in force, either by the Faculty or the people at large, I doubt the expediency of any additional legislation, until we can give assurance of a more strict observance of the laws now in force. I doubt if much over half the physicians now engaged in practice, or half the apothecaries engaged in selling drugs in Georgia, are legally authorized to do so. I am persuaded the better course would be for this Society to direct its efforts to secure a faithful observance of the laws now in force, before seeking to procure additional legislation. I am aware that a resolution has been passed by the society, recommending its members to endeavor to procure an observance of the laws relative to the licensing of physicians and the sale of drugs; and to report such persons as are thus engaged, in violation of law; but, as yet, I have not heard of one who has been reported, either to the courts, or grand juries, or to this society. In this case we have realized the truth of the old proverb, 'what is every one's business is nobody's business.' To effect this observance I would respectfully suggest the propriety of

this society appointing a committee of one or more persons in every county, whose duty it shall be—first, to use persuasive efforts to induce all the physicians and apothecaries in their respective counties to comply with the requisitions of existing laws; and if unsuccessful, to take legal steps to have the laws enforced; and require these committees to report annually to the society the result of their efforts. The duty of such a committee would certainly be an unenviable one. But prompted by a desire to elevate the character of the profession of medicine, and promote the best interests of the community in which they live, it is but reasonable to presume, men may be found in every county to engage in the enterprise when shielded and sustained by a special appointment from this society.

“Efforts have been made for several years past to procure the passage of a law by our Legislature, requiring the registry of Births and Deaths in each county. However important, in many respects, such a requisition, uniformly and faithfully observed, might prove, it is much to be doubted, if such an Act should be passed, if it would not remain a dead letter in our statute book. There has been, ever since the year 1823, (v. Cobb’s Digest, pp. 208-9,) a law requiring the Clerk of the Court of Ordinary in each county ‘to enter and register in a book to be kept for that purpose, the names of all persons who may report themselves to him, or who may be reported by their parents or guardians, as well as all who may be hereafter born within the said county, and who may be reported as aforesaid, upon due proof being made by affidavit or oath to the said Clerk of the said birth.’ And notwithstanding the existence of this law, it is not at all probable that the birth of one person in five hundred is thus registered.

“It is certainly an anomalous state of things that a physician is liable, both to a suit for damages and to indictment for mal-practice; and yet he is prevented by law, (after burial) and by a state of public opinion, stronger than law, from making such investigations, both as to the effect of disease and his remedies, as would enable him to prescribe with skill and certainty in future cases of the same disease.

“What changes should be made in this report, it is difficult to determine. To suffer the repose of the dead to be indiscriminately disturbed, and their mortal remains subjected to the gashing knife and grating saw, are well calculated to shock and to wound all the finer sympathies and feelings of the human heart. By legal enactments to make distinctions of cast or grade would be both invidious and unjust. To suffer the bold and reckless pretender in medicine to vend his way to an ignominious notoriety over the sufferings and lives of her citizens with impunity, is what ‘the Empire State of the South’ could not, and should not, for one moment, tolerate. How, then, is this anomalous state of things to be remedied? The best means I can suggest is the enlightening influence of kind and sympathetic intercourse between the physician and his patrons. Convince them of the importance of post mortem examinations, to the advancement of Medical Science, and the benefit thence resulting to the whole human family,

and to themselves and their families, as parts of the whole ; and many will be induced to suffer them to be made. When the privilege is granted, the utmost delicacy and neatness should be observed throughout the whole operation, and the corpse and its dressings restored as nearly as practicable in the same condition it was received. I am persuaded, by such a course, the privilege of post mortem examination might be frequently obtained, and every one, properly conducted, breaks down a barrier to a repetition. It should be clearly explained to the friends of the deceased, that the desire is not to dissect the body, but only to examine the organs principally involved in the disease. I would, most earnestly and affectionately, urge my young brethren of the profession to avail themselves, as often as they can, consistently with a frank and undisguised course of conduct on their part, and a delicate regard to the feelings of their patrons, of this most useful means of their own individual improvement, and the advancement of their profession.

“The Congress of the United States have acted wisely and humanely in their efforts to suppress the introduction of spurious and adulterated drugs and medicines into this country ; but it is very doubtful if Southern physicians, remote from the sea ports, derive the benefits anticipated from this law. If our physicians have to use adulterated medicines, it is a matter of little importance to them and their patients whether the adulteration is made in Constantinople or Liverpool, or Boston or New York. Would it not be equally wise and humane in our State Legislature to appoint inspectors of drugs and medicines, at the principal commercial inlets of our own State, with stringent regulations and heavy penalties on apothecaries for adulterating their medicines ?

“But if legislation is needed in Georgia on any subject ‘relating to the practice of medicine and the sale of drugs,’ it is in the suppression of the infuriate and wide spread mania of gulling and swindling in the sale and use of quack and secretly prepared medicines. It is not for the pecuniary profits of the profession I desire to see this nefarious traffic suppressed. I confidently believe these profits are increased by the indiscriminate use of such medicines. I am prompted alone by a desire to preserve the health and prolong the lives of my fellow-creatures. If our Legislature in its wisdom, has, by wise and stringent enactments, attempted to prevent the introduction and spread of the plague and small pox, why not, by similar enactments, prescribe this still greater and wide spread evil ? I verily believe the injury to the health and lives of the people of Georgia by plague and small pox, is not to be compared to that resulting from the use of quack medicines. This is more than the combined influence of ‘sword, pestilence and famine.’ But I have no desire that our Legislature should prohibit our good citizens from the use of these health-restoring and life-prolonging panaceas ; but when they do use them, I greatly desire they should know in truth and verity what they are using. To effect this object I suggest that our Legislature be respectfully and earnestly memorialized to pass a law prohibiting the sale, within this

State, of any secretly compounded, or any pretended patent medicine, unless the composition of such mixture shall be plainly printed on the bottle or paper containing said medicine or mixture; with heavy penalties for violation or false representation. This being known, I am persuaded very many of these favorite panaceas would soon lose all their charms and virtues. There is great inconsistency in our legislation relative to the practice of medicine, which wisely prohibits the graduates of all Medical Colleges (except our own), from practising their profession in this State without a license; whilst ignorant pretenders, and reckless and avaricious quacks and patentees are suffered to hawk their pretended medicines and nostrums, by the wagon load, into every nook and corner of the State, and deposit them for sale in every store and shop, without the slightest restriction against their sale, or the first legal effort to protect the people against any injury either to health or life they may produce. It is much to be regretted, that members of our own profession, prompted more by the love of filthy lucre than the elevation of the profession, occasionally engage in this low and deceptive traffic. What can place an individual in a more degraded position, in the estimation of all honorable and intelligent men, than to set himself up as the sole proprietor of some fulsomely extolled, secretly composed nostrum, and then affix to his name M. D.? 'Oh, shame where is thy blush!' The real Doctor in Medicine is above all such trick and humbug. If he makes a useful discovery or improvement, it is for the honor of his profession, and the good of the public, and he publishes it 'for the healing of the nations.' The truckster and pretender works for his individual pecuniary interest, and relies upon the ignorance and credulity of the people to raise him to ignominious notoriety. It is high time for the law to oppose its strong arm against this wide spread and growing evil."

The Topographical Reports are all interesting, and we only regret that similar ones were not received from the other congressional districts. A complete series of them would have been of great value. In the 1st District, Dr. Kollock reports the prevalent affections to have been intermittent, remittent, congestive, yellow and typhoid fevers, pneumonia, influenza, diarrhœa and dysentery. In November, cholera asphyxia made its appearance on the Savannah and Ogeechee rivers, but only to a limited extent.

From the 3d District, Dr. Cooper reports that, from his own observation and that of others, there occurred during the previous year the various forms of malarial fevers, typhoid fever, diarrhœa, dysentery, cholera morbus, pneumonia, bronchitis, rheumatism, neuralgia, rubecula, &c. The reporter thus expresses himself with regard to the use of common salt in intermittent fever:

"As is usual in wet seasons, intermittent and remittent fevers pre-

vailed to a great extent, but we had less typhoid fever than the previous year. Intermittent fever abounded in every portion of the county, more generally, however, in what is known as the 'Lime Lands,' and so far as observed by us, was less amenable to quinine than in any former season. In a few cases the chloride of sodium was resorted to, according to the direction of M. Piörny, and although our facilities for observing were not peculiarly favorable, yet, so far as noticed, we were highly pleased with the results. It not only overcame the chill, but in a few days the pallor gave way, and the cheek began to glow with health, with an increased cheerfulness and vivacity of the patient. Three years ago, Dr. Wm. P. Hort and Prof. Riddell, of the University of Louisiana, instituted some beautiful, interesting, and apparently conclusive experiments upon the 'distinct and independent vitality of the blood,' in which the solution of chloride of sodium was noticed to give a quickness and activity to the movements of the blood-globules, not imparted by any other solution, save, perhaps, the chlorate of potass. These experiments were not confined to freshly drawn blood, but it was allowed to become dry, and even remain so for two, three, and, I think, four days, and then remoistened with the various solutions, and even upon the fourth day movements were visible, which, after *repeated observation*, were attributed to independent vitality. In these experiments, it occurs to us, we may have a solution of the rapid and salutary effects of salt upon the economy in inducing that freshness of color and vivacity which are observed so soon after its administration. Entering the circulation, it may act directly upon the globules, in giving to them a vigorous and impulsive movement, and exerting a chemical change upon their contents, or a physical change upon the cell-wall itself. These facts, of the action of salt upon the blood, it seems, would contribute largely in explaining the rapid diminution of the size of the spleen in intermittent fever, noticed by M. Piörny.

"It has been observed that the spleen, when enlarged, diminished rapidly in size after the administration of salt. Now, this fact, considered in connexion with what Dr. Bennett terms leucocythemia, and the part which the spleen probably plays in hæmatisis, becomes, at least, of speculative interest. Observe—the colorless corpuscles must be largely in the ascendancy in persons who have suffered repeated attacks of intermittent fever, certainly the powers engaged in the completion of blood, in all its integral parts are impaired. If, therefore, the enlarged spleen be viewed as a precedent to, and in a great measure, the cause of the redundancy of the colorless corpuscle, its rapid diminution, the change of the complexion and increased vivacity referred to above, upon the administration of salt, may have an easy rationale in the power which salt is seen to exert in the appearance and movements of the blood."

We find in Dr. Word's report on the 5th District, the expression of views so judicious that we beg leave to subjoin some of them :

"A few years after the early settlement of the country, malarious diseases were uncommon, inflammatory diseases more frequent than

at present, the inflammation of higher grade, and vigorous antiphlogistic treatment better borne, and more successful than more recently. With the clearing up of the land, exposing a larger surface—covered with a rich vegetable mould, and saturated with the rains of winter—to the action of a summer's sun, there has been a marked increase of all the affections which 'malaria' is supposed to produce, and a very observable modification in the general sanative condition of the population, or in the character of many diseases which it is not pretended that malaria originates, but over which it appears to extend its mysterious influence. Many of the inflammatory attacks, occurring in winter in the last few years, have been found to assume the livery of this subtle morbid agent, evincing a decided tendency to *periodicity*, and demanding the administration of quinine. Many others, it is true, offer no such peculiarity, but are truly and frankly phlegmasiæ, requiring, for their successful treatment, the free and bold employment of the lancet, and all the antiphlogistic expedients so familiar to the past generation of physicians. 'This intermingling of symptoms, 'blending of lights and shadows,' is still more common in autumn and spring, and more embarrassing, because a just diagnosis is often difficult, and a mistake highly dangerous. To subject a patient, previously enfeebled by miasmatic influence, or actually laboring under an irregular form of miasmatic disease, though simulating, with astonishing accuracy, an acute inflammation, to the debilitating effects of the antiphlogistic treatment, is not simply unnecessary, but, as has been too often sadly demonstrated, hazardous or fatal, producing prolonged debility, tedious convalescence, or else speedily, or more remotely, death. To omit to do so, upon the other hand, when an important organ is truly the seat of active inflammation, is to expose him to immediate peril, or to the doubtful consequences of the pathological changes, by which that condition is followed. In a more malarious region, as well as in districts where the influence of malaria is less marked, the nice discrimination, so often demanded here, is, perhaps, less important, but the ability to make it, in this section, decides between success and the want of it. Many conditions, classified as particular diseases, might be cited as illustrative of this point. Rheumatism, dysentery, inflammation of the liver, brain, spleen, lungs, &c. when uncomplicated by the influence mentioned, unquestionably demand the free and frequent employment of the lancet. It has been more generally used, and more universally approved and sanctioned, by the experience of the profession in all ages, than any other means for combating this class of diseases. The careful analysis of the blood in inflammatory diseases, and the microscopic examination of the state of the capillary vessels during their progress, has given, more recently, rational confirmation to the lessons of successful empiricism, by demonstrating the favorable nature of the changes which bloodletting induces in the blood itself, as well as in the vessels and tissues of the affected parts. And yet, there have not been wanting, from time to time, physicians, and even entire schools, who have protested against its employment, and sustained their position by an appeal

to cases to which it had been judged to be applicable, but in which it had produced the most unfortunate results. Like difference of opinion still prevails all over the world. In England and France, the lancet is regarded as the 'sheet anchor of hope,' in the class of diseases under consideration, and its use recommended with an exclusiveness and universality proportioned to their estimation of its importance. In their more southern colonial possessions, in India and Algeria, its employment is deprecated as inefficient, and positively hurtful in diseases having the same classification, name, and symptoms. In the northern part of the United States, the opinions of English physicians are very generally entertained; while the existence around them of similar conditions, has prompted southern physicians to adopt the views of the colonists of India and Algeria, and to join them in their denunciation of what they regard as the abuse of the lancet.

"Every year cases of all the above enumerated diseases are met with, which, if taken as the types of the whole, would freely sustain either of the opinions just adverted to. At the first settlement of the country, almost every case was of highly inflammatory character, and early and efficient bleeding its most successful treatment. With the increase of the causes of malaria in the clearing up of the country, a few years subsequently, instances were observed in which this plan was not followed up by prompt and complete restoration to health as formerly, but appeared to induce an adynamic condition, the precursor of death; or if recovery took place, it was only after tedious convalescence. This class of cases, now in larger proportion, is of more frequent occurrence in autumn than in winter, but is liable to be met with at any season of the year; more frequently observed, however, in some localities than others. The proportion of cases demanding the treatment formerly so successful, though lessening, is still large, and when they are recognized, the success attending it is in the highest degree gratifying.

"Promptly to detect these diverse conditions, amidst a bundle of symptoms, perplexingly alike in both, exacts the highest diagnostic skill—a skill not attainable by the study of written rules so much as by the careful observation of very many examples of each, and the ability to seize upon the indescribable shades of difference between them. Many cases are so clearly marked as to leave no room for doubt. No person would mistake neuralgia of the liver, or spleen, when marked by diurnal paroxysms, and unaccompanied by tenderness or acceleration of the pulse, for inflammation of these viscera. Few physicians would mistake the thoracic pain, and pulmonary hyperæmia recurring regularly every day, which sometimes attends a marked attack of intermittent fever, for inflammation of the lungs. But, in other instances, there co-exists with malarious disease some degree of congestion, or actual inflammation, of a portion or the whole of an organ; in these the paroxysmal character of the pain is less distinct, or is not perceptible, the other characteristics of malarious disease are less evident, and there is every probability that injury may be done by the injudicious abstraction of blood. By keeping in

view, however, the paroxysmal tendency of malarious diseases, their constant co existence with cerebro-spinal irritation, the usual absence of the other conditions of inflammation in the *pains* which they occasion, and in pneumonia especially, by resorting to auscultation and percussion to determine the exact state of the lung, and by regarding, also, the degrees of previous exposure of the subject, it is possible, generally, to obtain a solution of the problem.

"If there be no error in the views thus imperfectly expressed, it is necessary, in malarious districts, not only to recognize a widely spread depressing agency, complicating, to some extent, even purely inflammatory attacks, but to suspect, also, and be ready to detect widely different diseases, which are known by a common appellation.

"An alteration of the nomenclature of diseases, would simplify the labor, and guard, to some extent, against error; thus, if the so called pneumonia, which, in southern Georgia and Alabama, (and of which a few cases occur with us,) proves so fatal under the use of the lancet, and yields so promptly to quinine, were designated according to its real character, as a marked intermittent or remittent fever, there would be no difficulty in deciding upon its treatment; or if a common variety of so-called rheumatism had some distinct appellation to show that it depends upon spinal irritation, and has its seat in the nerves of the cerebro-spinal system, and is perfectly distinct from those other forms which attack the fibrous tissue of the body, and are attended by high vascular action, there would be no probability of the injudicious use of colchicum, and the lancet, or the unwise abstinence from sinapisms and quinine."

We add Dr. Word's opinion of *Veratrum Viride* :

"*Veratrum Viride*.—Since the appearance of Dr. Norwood's article upon this subject, in the January number of the Augusta Medical and Surgical Journal, we have treated a few cases of typhoid pneumonia with this remedy, and though it did not prove so successful as in his hands, we are greatly encouraged with its effects. Its controlling influence upon arterial action is truly wonderful. It is indeed a great discovery—a triumph for its author—a triumph to the Southern profession, and an acquisition to science and to the world of incalculable benefit!

"Judging from the limited experience we have had in the use of this remedy, we do not think it capable of cutting short an attack of typhoid fever, but we believe that it will prove of great service in moderating the excitement and the severity of the symptoms, and in many cases may be solely relied upon to conduct the patient safely through the disease."

We do not recollect to have heard before of the occurrence of *milk sickness* in Georgia.

"*Milk sickness* is mentioned as incident and peculiar to particular localities in the county of Walker. The poison proved fatal to several individuals, and a number of cattle in former years. The

bounds within which the poison originates, can be accurately defined, but the cause remains yet to be discovered."

Our apology for reprinting in this Journal the Report D, will be found in our remarks upon the typographical errors of the "Transactions."

Introductory Address, delivered in the Medical College of Georgia at the opening of the annual session, Nov. 7, 1853. By I. P. GARVIN, M. D., &c.

The perusal of Prof. Garvin's Address will prove a treat to those who may have the good fortune to receive it. The Class have appreciated its merits by having it published at their own expense. We may be allowed to make a few extracts from it, illustrative of the author's chaste style.

"But the exercise of the intellect, and the amount of scientific knowledge which Medicine requires of those who would cultivate it, before they can be deemed worthy of its honors and emoluments, are not its only claims to the respect and gratitude of men, but it is worthy of all honor, for some of the nobler moral qualities which it develops, strengthens, and enlarges. We are not disposed to arrogate for it more than is its due, when we assert that it is but another name for Philanthropy itself. The motto of the practitioner of medicine may well be 'Homo sum, et humani a me nil alienum puto.' The great aim of all the intellectual labor which must be undergone to secure the qualifications necessary for its successful exercise, is but to enable it the more successfully to minister to human suffering. Amid revelry and mirth—in the crowded mart—in the tumultuous assembly—or in the more dignified deliberations of the forum, Medicine has no place. Its province is the haunts of human suffering—its mission is the bed-side where man struggles for his life. It is there, to interpose between the monster and his prey, and by skilful and timely efforts, to snatch the trembling victim from the grave, and give him back to usefulness and enjoyment. Amid such scenes is the appropriate place for the medical practitioner. It matters not whether they exhibit themselves in the palaces of the rich, or in the hovels of the poor, their claims for aid and sympathy are equally recognised; for Medicine asks not the rank or fortune, of those who crave its assistance. It is no idle boast, that it extends its cares alike to the poor as to the rich. Indeed, the poor, by common consent, seem to be made its heritage. Whilst others give vent to their sympathy for human suffering, in eloquent phrases, or, of their abundance, dole out that which costs not the slightest sacrifice of personal ease or enjoyment, the practitioner of medicine is expected to manifest his sympathy, by deserting the comforts of the domestic fireside, by night and by day braving the summer's heat, or the winter's cold, and risking health,

and even life itself, in the cause of humanity. So universally and cheerfully are these sacrifices made, that the public never imagine, for a single moment, that such services are entitled to any recognition or reward, beyond the respect of the wise and the good, and this meed has been extended to them in every age.

“But some have urged against the benevolent character of the profession of medicine, that the frequent sight of human suffering has a tendency to harden the heart, and render it insensible to the claims of humanity. It may be so with the idle, or merely curious spectator of human wretchedness, but it is never thus, with those who only seek such scenes for benevolent purposes. It has been wisely ordained, that the frequent performance of virtuous deeds, should strengthen the love of virtue, and this is eminently true of the medical profession. The daily exercise of its kind offices renders their performance in a great degree necessary to the happiness of the physician. He may indeed stand by the couch of the dying, with a tearless eye, but is he slow to seize every opportunity to relieve the sufferer, and smooth his passage to the grave? Is he not found at the bedside of the diseased at all hours—as well when the world is hushed in sleep, as when it is engaged in the bustle of life?—His is not that sickly sensibility, which expends itself in tears, or unfits its possessor for useful exertion, but it is that living, moving, acting sympathy, which employs itself in efforts to relieve.

“The benevolence which Medicine develops and cultivates, not only exhibits itself in incessant, laborious, and often painful effort to relieve the diseased of every rank and condition of life, but it does so at the expense of every selfish enjoyment. For the medical man there are but few of the pleasures of social life. He has but little time for the society, or converse of friends. He has but few hours for relaxation. The holy Sabbath, the day of rest, ordained for man and brute, brings no rest to him. Whilst men engaged in other pursuits, may screen themselves from the summer’s sun, and the winter’s frost, and lie down at night on downy couches, to pleasant dreams—the physician must brave the tempest, and heed neither cold nor heat, nor hunger nor fatigue, in his mission of mercy. Even when ‘the pestilence which walketh in darkness, and wasteth at noonday,’ scatters far and wide its noiseless shafts, he is expected to stand firm at his post. The merchant and the mechanic, the lawyer and the man of letters, nay, the very slave, may all fly before the face of the destroyer—but he does not. Though thousands fall around him, he must face the danger, and be ever ready at every personal sacrifice and hazard, to succour the smitten. The heroism which leads men to the cannon’s mouth, in true grandeur, falls far beneath that moral heroism which is always exhibited by the physician in pestilential visitations. The soldier moves to the conflict, surrounded by all ‘the pride, and pomp, and circumstance of glorious war.’ The eyes of his comrades are upon him—their shouts ring in his ears—and he is nerved to action by bright hopes of laurel crowns, and the applause of an admiring world. His heroic efforts are soon over—a few short

minutes, or hours, and glory or the grave is won. Not so with the physician: no voice cheers him on, but the still, small voice of an approving conscience—no sound of spirit-stirring drum, or ear-piercing fife, falls upon his ear—he hears but the groans of the sick and dying, and the wailings of the bereaved. No vision of laurel crowns—no hope of the hosannas of the mob sustain his spirit; but he toils on, through days and weeks, it may be months, with a stout heart and an unblenching cheek. Full well he knows, that however his services may be appreciated during these days of desolation, the grave or oblivion when they have passed away, are the only rewards in store for him. When the glorious victories of our troops in Mexico were proclaimed throughout our land, each hero's name at once became a household word, and honors and rewards were profusely showered upon them; but the physicians who for months have been battling with disease and death in their most frightful forms, in the homesteads of the afflicted cities and towns of the South-west, are unknown; and when, ever and anon, some one of this devoted band has yielded up his life in the cause of humanity, the public eye has not marked his fall, nor has the public heart felt one throb of sorrow. Thus it has ever been, and ever will be; yet medical men will never prove recreant to their high trust, or hesitate to sacrifice comfort and health, and even life itself, in the cause of humanity."

Prof. Parker's treatment of Hydrocele.—Prof. W. Parker, of New York, advocates (N. Y. Journ. of Medicine,) the use of lunar caustic in preference to injections, for the radical cure of hydrocele. After drawing off the fluid with a trocar in the usual manner, he introduces through the canula a common probe, the end of which is coated with nitrate of silver for half an inch or more. This extremity thus charged is carried lightly over the serous surface of the tunica vaginalis, in various directions, and then removed. The patient complains of some pain during this part of the operation—but is directed to keep quiet and to apply cold lotions should the inflammation be at all serious.

Radical Cure of Hernia.—Wutzer's plan for the radical cure of reducible inguinal hernia is gaining favor, and is advocated judiciously by Dr. Weber, in the N. Y. Journ. of Med., Jan. 1854. Wutzer's method is somewhat similar to that of Gerdy, but the invagination and adhesion are effected by means of compression of the integuments and sac between a cylinder introduced up to the internal inguinal ring and a narrow plate on the outside, both of which are brought together with screws. The cylinder contains an elastic needle, which, when the invagination is completed, may be projected so as to

transfix the upper and anterior portion of the walls and to pass through an opening in the external plate. The point is then covered with a cork and the compression made ; to be continued a week, more or less, according to the degree of inflammation induced.

Munificence of Physicians.—It is not long since that the lamented Orfila bequeathed large sums for the promotion of medical knowledge. More recently, Dr. Shattuck, of Boston, has contributed fifteen thousand dollars for the endowment of a Professorship of Pathological Anatomy in the Medical College of his city. We now read that a physician of one of the Parisian Hospitals has made a donation to the "*Gazette des Hopitaux*" of 10,000 francs on condition that his name be kept secret ; that 3,000 francs be appropriated to the encouragement of the authors of useful and practical papers to be published in that gazette ; and that the remainder be expended in distributing copies to poor physicians or students.

Death of distinguished Physicians.—We announce with regret the demise of Dr. Hester, the able editor of the New Orleans Medical and Surgical Journal, and of Dr. Samuel McClellan, one of the best obstetricians of Philadelphia.

Deaths by Chloroform in England.—At the coroner's inquest recently held in consequence of the death of a patient under the influence of chloroform, at St. Bartholomew's Hospital (London) it was stated that thirty deaths had occurred from the use of that agent in Great Britain since its introduction. In the case under examination, the patient was a girl 22 years of age, affected with syphilitic ulcerations of the vagina, for which cauterization was deemed advisable, and the anæsthetic administered under the direction of Mr. Paget. It proved fatal, although the patient had inhaled it without injury for the same purpose about a fortnight before.

Dr. DeWolf, of Chester, Mass., reports in the Buffalo Med. Journal, the death of a lady in child-bed, from the injudicious inhalation of chloroform.

Quackery in England.—It is stated that, according to the census returns of England, there are in that country nearly thirty thousand persons practising medicine in its various branches without legal qualifications.

New mode of inducing Vomiting.—The New Hampshire Journal of Medicine reports a case of poisoning by opium, in which, after the failure of the usual means for inducing vomiting, the patient was made to drink two glasses of vinegar and water, immediately followed by ʒij. of carb. potassa in water. A powerful effervescence took place, which instantly produced copious vomiting.

The American Medical Monthly.—New York is determined to be no laggard in the cause of science. We have just received the American Medical Monthly, issued under the patronage of the New York Medical College, and edited by Prof. E. H. Parker. We doubt not that it will prove a valuable addition to our periodical literature—and we very cheerfully add it to our list of exchanges.

The Town Council of Fredericksburg, Virginia, have recently passed an order, directing that the tax on licences, paid by lawyers, physicians and dentists, for the year 1852, should be refunded. This is in accordance with a decision recently made by Judge Lomax, that such taxes are unconstitutional.—[*Fredericksburg Herald*.]

We wish we had such a Judge in Georgia.—EDR.

Paste made of Sulphuric Acid and Saffron as a new Caustic in Malignant Ulceration of the Face.—M. E. Cazenave, of Paris, relates, in L'Union Medicale, for 22d January, two cases of malignant ulceration of the face, in which he has successfully employed a local application, made from sulphuric acid and powdered saffron. The remedy is formed by pouring the acid on the saffron, and applying it in the form of a soft paste. Its corrosive action is immediately manifested on the diseased tissues; the paste dries, and falls off in two or or three days, in the form of black crusts, which carry with them the eschar. The application is made several times; the wound assumes a healthy red tint, and cicatrization takes place. In one case a year has elapsed, and in the other two years, and the disease has not returned.

The efficacy of this treatment is evidently dependent on the sulphuric acid, which we believe would succeed equally well if made into paste with common flour, or any ligneous powder as with saffron. A paste of sulphuric acid and flour would be worth trying in obstinate cases of phagedenic ulceration.—*Association Transylvania Med. Journal*.

Transactions of the Medical Society of the State of Georgia.—We are requested to state that a number of the members of the Society are in arrears for the assessment of \$3—and that copies of the

Transactions are left at this office for distribution to such as may pay up their dues.

American Medical Association.—The seventh annual meeting of the American Medical Association will be held in the city of St. Louis on Tuesday, May 2nd, 1854. The Secretaries of all societies and of all other bodies entitled to representation in the Association, are requested to forward to the undersigned correct lists of their respective delegations *as soon as they may be appointed*,—and it is *earnestly* desired by the Committee of Arrangements that the appointments be made at as early a period as possible.

The following are extracts from Art. 2nd of the Constitution :

“Each local society shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more, shall have the privilege of sending two delegates,—and every other permanently organized medical institution of good standing, shall have the privilege of sending one delegate.

“Delegates representing the medical staff of the United States Army and Navy, shall be appointed by the chiefs of the army and navy medical bureaux. The number of delegates appointed shall be four from the army medical officers, and an equal number from the navy medical officers.”

The latter clause, in relation to delegates from the army and navy, was adopted as an amendment to Art. 2nd of the Constitution, at the last meeting of the Association, held in New York, in May, 1853.

E. S. LEMOINE,
One of the Secretaries,
St. Louis.

✍ The Medical Press of the United States is respectfully requested to copy the foregoing.

Anæsthesia in Midwifery and Fatal Effects of Anæsthetic Agents.—The undersigned was appointed by the American Medical Association to report on the above mentioned subjects at its next session in St. Louis. He therefore respectfully urges his medical brethren to make extensive and close observations on anæsthesia in midwifery, and also to analyze carefully all alleged cases of death from the use of anæsthetic agents, and to forward the results to him before February 1st, 1854. The latter cases must be those only occurring within the present year of the Association.

Richmond, Va.

JAMES BOLTON.

Erratum.—In January No., on p. 17, for “*E. W. Booth*,” read *G. W. Booth*.

SOUTHERN MEDICAL AND SURGICAL JOURNAL.

Vol. 10.]

NEW SERIES.—MARCH, 1854.

[No. 3.]

ORIGINAL AND ECLECTIC.

ARTICLE VIII.

Essay upon the Presence of Sugar in the Urine, and its Connection with Respiration. By ALVARO REYNOSO. (Translated for this Journal, by Wm. J. HOLT, M. D., of Georgia, now in Paris.)

The memoir that I have the honor to present to the Academy, is no more than the development of three notes that I have already submitted to their judgment. I have, since the publication of these notes, repeated a number of times my experiments, and found some new facts which come to the support of the theory that I had published.

Life is an assemblage of successive formations and decompositions: during its existence our organs are continually being destroyed and reformed, although at certain epochs each one of its actions can be augmented or diminished separately.* We have a proof of the decomposition that our organs undergo, in the continual need of nourishment; a want which does not depend entirely upon the diminution of the liquids, for the solids contribute their share. In fact, these parts, especially the muscles, diminish, and their normal composition is ultimately changed, when nourishment is wanting. An addition of new materials supposes a corresponding consumption, and as the

* See Burdach, vol. viii., p. 420, and vol. ix., p. 101 and 691.

body remains the same when nutrition undergoes no alteration, this ought to have as antagonist a *resorption*, the proportional quantity of which is too great in atrophy and too feeble in hypertrophy. And this renewing of materials ought to accompany all the acts of life; for the increase of activity in a function induces, as a consequence, either the want of greater nourishment and repose, or wasting and reduction. It is what we observe in fevers, after violent exercises, continued watchings, constant labors of the study, and commotions of the passions. After that, our body is subjected to a continual change of its substances, so that at the end of a certain number of years there remains not an atom of the matter of which it was formed.

The animal then has need of matters to repair the losses that the vital energy causes to his organs—matters which ought to present the same composition as the organs themselves.

Besides, we know that life is always accompanied with a certain disengagement of *heat*; and whether we consider this heat (after the manner of the ancients) as the source of life, or only as the result, it is proved that the disengagement of heat is in proportion to the energy and activity of life. Again: we see that respiration exercises an *influence* upon the production of heat, and that these two functions are in direct connexion in the animal series, in the different circumstances and periods of life. We know, for example, that respiration is the condition of muscular force, and that the development of the respiratory system in the animal series is in direct connexion with the facility and velocity of voluntary motion.

The heat disengaged is in proportion to the respiration.

It is equally incontestable that the quantity of heat developed is generally in proportion to the oxygen inspired and the carbonic acid expired. Thus, at a high degree of organization, when life enjoys great activity, and when the development of heat is considerable the consumption of oxygen is greater.

Substances proper to combine easily with oxygen and to develop the most heat in this *combustion*, will then be necessary for an animal. For aliment, then, two kinds of substances are necessary: one kind destined to identify themselves with the parts of the organism, to repair the losses which accompany the

exercise of life, and to develop our organs; others destined to furnish heat by their combination with the oxygen in the act of respiration. The decompositions which accompany the exercise of life, and the heat which is the cause or effect of it, being both in direct connexion with vital energy, it is clear that the quantity of aliment ought to be proportional to vital activity. Liebig calls the reparatory aliments, plastic aliments; and under this denomination he ranks albumine, caseine and fibrin, vegetable and animal. These substances are, in fact, the only ones furnished by these two kingdoms which can be capable of giving origin, in the process of nutrition, to the essential parts of the blood, which nourishes our organs. We understand, also, that we should rank among the plastic aliments, the different mineral salts, which contribute to the formation of the solids and to the composition of the liquids, of the economy.

Liebig designates under the name of *agents of respiration*, the aliments destined to combine themselves with the oxygen, to develop heat, and ranks in that class all of the non-azotized matters—*sugar, starch, fat*. Among these several agents of respiration, the most suitable is fat, inasmuch as it burns more easily and produces more heat.

As long as harmony exists between the proportions of these substances, in the mixed nourishment and vital energy, each one accomplishes its end; for, in the circulation, the plastic aliments are preserved from combustion by the presence of non-azotized substances; but as soon as they are wanting, there is a certain proportion of the plastic aliments destroyed, although they burn with difficulty and produce little heat. It is probable that these plastic aliments are not burned, until after having been changed into other substances, into fat for example.*

When, on the contrary, the plastic aliments are wanting, the

* Even during a mixed regimen we see appearing in the urine principles such as urea, uric acid, &c., azotized substances which cannot proceed but from burned azotised matters. Their origin is very easy to explain. We have already admitted that life is an uninterrupted series of decompositions and formations. The azotised substances of our organs, which have been modified during the exercise of the latter, and which are no longer proper to contribute to their structure, are destroyed by the economy, burned by the oxygen, and rejected under the form of urea, uric acid. The sulphur and phosphorus contained in these substances are transformed into sulphuric and phosphoric acids, and rejected under the form of sulphates and phosphates.

animal wastes away and dies ; for animals have not the faculty of transforming sugar, starch, and fat, into plastic aliments, a property which vegetables alone possess.

If the animal is subjected to a very abundant, mixed regimen, he acquires a plumpness, that is to say, the organs grow, on account of the accumulated plastic substances and the deposited respiratory agents, as for example, fat.

Let us examine the part that the aliments take in the formation of fat.

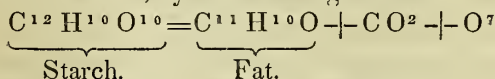
We have already said, that fat is a substance destined to contribute to the production of heat ; its accumulation in the organism can not proceed, but from want of respiration, an excess of nourishment, or both of them together. Fat can either arise from the aliments, or form itself in the economy ; it can also be deposited in the organism, in these two manners together. Almost always the economy produces the greater part, especially when the nourishment is rich in plastic substances. When an animal is submitted to a regimen, poor in plastic substances, then the accumulation of fat is sensibly equal to the ingesta of the animal. When fat predominates in the aliments and the plastic matters do not suffice for the formation of cells, the muscles are resorbed and fat deposited ; but a disease follows and the animal dies. If he is submitted to a mixed regimen, rich in plastic principles, then we find that the quantity of fat accumulated is superior to that which was contained in the nourishment. Moreover, it is a curious fact that there ought previously to exist in the food a certain quantity of fat in order to determine the rapid formation of a greater quantity of this substance in the economy. Thus, for example, rice, which we may consider a grain without fatty principle, does not fatten, while Indian corn, which contains a small quantity of it, is very proper for that purpose.

What are the aliments which produce fat ? In what organ is it formed ? The first question is resolved—the second not as yet.*

* See on the question of the formation of fat—Boussingault, *Economie rurale*, vol. ii., p. 561 ; Dumas, *Chimie Physiologique* ; Liebig, *nouvelles lettres sur la Chimie*, p. 118 ; Persoz, *Experiences sur l'engrais des oies* ; *Annales de Chimie et de Physique*, vol. xiv, p. 408 ; Jacqelin *remarques sur les experiences de M. Persoz* ; *Annales de Chimie et de Physique*, vol. xxi., p. 490.

Fat can proceed either from azotised or non-azotised aliments. The azotised aliments, according to M. Wurtz, by putrefaction, divide into ammonia and fatty acids, (butyric and valerianic,) so that we understand that fat is drawn off or derived from these azotised matters. If we recollect that sugar produces butyric acid, when in the presence of caseum in a state of putrefaction, (Pelouze and Gélis,) and besides that, this same sugar, in presence of particular ferments, which are found in potatoes, beets, &c., produces amylic alcohol, from whence arises valerianic acid, an acid found by M. Chevreul in the fat of the cetaceæ, we will easily conceive of the formation of fat, by the means of sugar. If it is so, says M. Boussingault, animals would share with vegetables, the faculty of creating fatty bodies, and that, probably by analogous means. We see, in fact, that starch and the saccharine substance gradually disappear in plants as the fatty substance accumulates in the seeds.

According to Liebig, we would be able to deduce the formation of fat from starch, by the following division :



As we know that starch is never absorbed but in the state of grape sugar, it would be necessary, in order to explain this formation, to establish the following formula:— $C^{12} H^{14} O^{14} = 4 H O - C^{11} H^{10} O - O^7 - C O^2$.

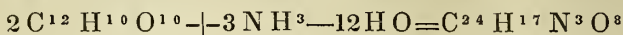
The oxygen set free in this reaction, would combine with other substances, and would be rejected under the same form, as the oxygen introduced into the system by respiration. It would necessarily follow that there would be in the organism, a source for oxygen, independent of that of the air, so that sometimes the quantity of carbonic acid eliminated, would be greater, proportionally, than the inspired oxygen.

The air, in which animals live who are subjected to the process of fattening, has not as yet been analysed, so that we cannot affirm, whether this hypothesis be true or false. However, I will recall a fact which I think comes to the support of it. MM. Regnault and Reiset have often proved, that in chickens submitted to a regimen of grain, the quantity of carbonic acid expired, is superior to the oxygen furnished by respiration.*

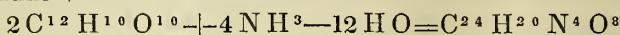
* *Annales de Chimie et de Physique*, vol. xxvi., p. 514.

If we admit that sugar and starch can be transformed into fat by the above equation, we will be able to understand its formation by the proteic matters. According to M. Hunt,* protein, which is the normal kind of albuminous matters, would be derived from the cellular tissue, and would be an *amide* of this latter substance. He supposes that the small quantities of sulphur and phosphorus met with, take the place of the oxygen and normal azote. M. Hunt proposes as the formula of protein and the explanation of its formation, the following equation:†

Protein—



Gelatine—



The reaction observed by M. Gehhardt, gives probability to the formula of gelatine; when isinglass is boiled with sulphuric acid diluted with water, a large quantity of sulphate of ammonia and sugar is formed, which ferments with the leaven of beer and produces carbonic acid and alcohol.

Thus, then, fat would be derived from protein by a reaction analogous to that which explains its production by means of starch; only the oxygen set free, would be absorbed by the residues of carbon and azote, to form the uric compounds found rejected by the urine.

To complete the enunciation of theories on the use of sugar in the economy, we must recollect that, according to Tiedemann and Gmelin, it contributes to the formation of bile. Besides, it would form the lactic acid found in the economy. According to Berzelius, lactic acid would also be the product of the spontaneous decomposition of the animal matters in the interior of the body.

Whatever may be the modifications that sugar undergoes, before it is destroyed in the economy, it is shown that it always finishes by being completely burned, producing carbonic acid

* Comptes Rendus de Travaux de Chimie, par MM. Laurent et Gehhardt, 1850, p. 317.

† The formula for protein, of M. Hunt, makes—Carbon, 53.93; Hydrogen, 6.36; Azote, 15.73; Oxygen, 24.34

MM. Dumas and Cahours have found for albumine—Carbon, 53.59; Hydrogen, 7.27; Azote, 15.72; Oxygen, 23.52.

and water. Besides, it is certain that a large part of the sugar disappears through the lungs in the act of respiration; for the blood which leaves the liver and continues towards the lungs, contains sugar, and that which leaves the lungs is completely exempt from it, or sensibly so. I say sensibly, for it is probable that the arterial blood contains sugar in such small quantities that analysis cannot disclose it, and which is destined to be burned in the rest of the economy; for combustion not only takes place in the lungs, but in all parts of the body.

If respiration is enfeebled—if the economy cannot produce the quantity of heat indispensable for its normal support, then a part of the sugar which exists in the economy, escapes through the secretions, not being able to be burned in order to produce the heat, nor to undergo the other transformations to which it is subjected in the normal exercise of our functions. For the formation of fat, for example, although indicating an excess of combustible food, a good alimentation and assimilation of azotised principles is imperiously required. Now, a good alimentation and assimilation of the azotised principles, can not take place except when the nutrition of our organs demand them, and when the heat disengaged in respiration second them—conditions which require the complete exercise of our functions.

Thus, whatever may be the form under which the sugar disappears in respiration, it is certain that it is destroyed, either in being burned directly, or converted into other substances. Besides, whether this transformation or combustion of sugar is connected with respiration itself, (and primitively as I think) or whether the respiration does not contribute to it except after the vigour of life, by its connexion with other functions, and by exercising a superior and by its importance a much more marked influence, in either event, the destruction of sugar is in proportion to the degree of respiration.

To resume, my position is as follows :

It being shown that the sugar is destroyed in respiration, it remains to prove that this destruction is in direct proportion to the respiration.

The sugar which is not destroyed in the respiratory act or metamorphosed in the economy, passes into the urine and it is by its presence in this liquid that we judge of its non-destruction

or nonmodification; for in a physiological state, sugar is not found in the urine.

Let us glance at the theories, that we can produce upon this phenomena.

Firstly: The respiration *remaining normal*; the sugar appearing in the urine, would be there, because the liver secretes a greater quantity of it than the economy can consume.

Secondly: My theory is as follows: the quantity of sugar consumed by the animal in a healthy state, will be diminished when the function of respiration is no longer exercised, as in the normal state.

Since the experiments which have led to admit a glucogenic power in the liver, it has been imagined, that whenever sugar appears in the urine, its presence is due to the fact that the liver produces a greater quantity of it than the animal destroys. Without wishing to note all that this proposition presents as positive, we will say, without denying either the importance or exactness of THE WORK,* which has served as the basis of this theory, that this function of the liver appears to us insufficient to explain this phenomenon.

If we admit that sugar is destroyed during respiration, we must necessarily admit, either that the sugar increases beyond the force which destroys it, or that the respiration diminishes and can no longer destroy the quantity which disappears in the normal condition. The two circumstances might take place separately or conjointly. I only believe the second, for it is the only one that we can prove. It would be necessary to prove numerically that the quantity of sugar produced by the liver can surpass greatly the enormous quantities that we destroy every day. It appears at first sight incredible, that the quantity of sugar produced in the liver when an animal respire ether, can be greater than that which he can ingest at one meal, either of sugar itself, or of aliments susceptible of being transformed into sugar, a quantity which nevertheless is entirely destroyed. •

Without enumerating the numerous cases in which sugar

*I think he probably alludes to a recent memoir, by Mr. Claude Bernard, upon the nouvelle fonction du foie considéré comme organe producteur de matière sucrée chez l'homme et les animaux.—HOLT.

appears in the urine when the first proposition is incapable of explaining its presence, there are circumstances of the passage of sugar which contradict it entirely; while on the other hand all the facts are well explained by the second, as soon as we admit of a modification in respiration. We will have occasion to return to this subject.

The first note that I had the honour to present to the Academy was thus conceived :

“The functions of the medulla oblongata have been studied by different physiologists, all of whom agree in considering it as the focus and regulating organ of the respiratory movements. Besides M. Flourens has found, that there is a part of the bulb, very circumscribed, which is the veritable seat of respiration. This point is found in rabbits, immediately above the origin of the eighth pair of nerves and its inferior limit almost underneath that origin. M. Bernard, by pricking rabbits near the origin of the pneumo-gastric, renders them diabetic; and he explains this phenomenon by saying, that under the influence of the excitement produced, the liver secretes so much sugar that not being able to be consumed by respiration, it passes into the urine. I thought to be able to explain the phenomena by admitting that, under the influence of the lesion caused by the puncture, paralysis of the respiration ensued, if not complete at least partial, and that consequently the normal sugar not being able to be burned, passed into the urine. In order to prove it, it was necessary to find a means to obstruct respiration by causing asphyxia; the experiment has proved to us, that by means of anæsthætic agents, we succeeded in producing sugar in the urine.

“Supposing our explanation to be right, we ought to find as much more sugar, as the animal subjected to the etherisation had a more active respiration and as his food contained more sugar; for there passed off more of unburned sugar. We have observed, in fact, that in herbivorous animals and those subjected to a mixed regimen, more sugar passes than in carnivorous animals nourished entirely on animal food: in the case of two men subjected to etherisation, the more vigorous gives more sugar.

“In short, it was curious to see whether in other circum-

stances of asphyxia, we would find the animals becoming diabetic. Rabbits strangulated and drowned gave us sugar in the urine; but it must be added that we did not obtain it in every case, probably because the means of asphyxia, induced numerous disturbing causes in the economy.

"Thus, a living animal which did not breathe, would normally present sugar in his urine. M. Bernard has, in fact, proved that in the *foetus* sugar is always found in the urine.

"We think that it should be looked for also in persons subjected to a hyposthenic treatment.

"A word upon the manner of making the experiments. We may operate upon animals; or better, upon a vigorous and healthy man. We first make them urinate; afterwards etherise them. We collect the urine, treat it with the sub acetate of lead, filter and precipitate the excess of the salt of the lead by the carbonate of soda. It is in the filtered and concentrated liquor, that the presence of sugar must be looked for, with an alkaline solution of the tartrate of potassa and copper, or in placing it in contact with the leaven of beer, which transforms the sugar into alcohol and carbonic acid.

"We think that these experiments will render clear the disease of the diabetics; for they establish the relation which exists between the respiration, nervous influence and the sugar of urine."

EFFECT OF INSPIRATIONS OF ETHER.

As I said in my first note, whenever an animal breathes ether, sugar appears in the urine. I explain that fact, by the trouble that the respiration undergoes, which being diminished, can not destroy all the sugar that the blood furnishes.

It has been attempted to explain this phenomenon in a different manner. It has been pretended that the vapors of ether, upon arriving at the lungs, produced an irritation, which would be transmitted by the pneumo-gastric to the encephalon, and thence reflected upon the great sympathetic, which, irritated in its turn, would increase the production of sugar in the liver and to such a point, that the economy being no longer able to destroy all, would reject the excess by the urine. Nevertheless, I have made an experiment which does not accord with this ingenious explanation.

I take a rabbit and make it urinate. Afterwards, I cut the two pneumogastrics at the neck, taking away at least two *centimetres* (about an inch) of the nerve of both sides, and then make the animal respire ether. I commence at first by placing it in a complete state of anæsthesia. When he is entirely aroused, I make it again respire ether during ten minutes, but without placing it in a complete state of anæsthesia. Then I examine its urine, which is very clear and contains sugar in as great quantity as if the pneumogastrics had not been destroyed.

Thus, whenever we make a rabbit breathe ether, whether he possesses his pneumogastrics, or whether he has been deprived of them, there is always a passage of sugar in the urine,

When rabbits breathe chloroform, Dutch liquor, hydriodic, hydrobromic, chloramyllic, *nitric*,* and acetic ether, aldehyde, benzine and acetone, we obtain also the passage of sugar in the urine. The same result is obtained by slowly putting them in a state of asphyxia by means of sulphuretted hydrogen and carbonic acid or with the vapors of hydrocyanic acid.

I think, then, I may conclude that :

All substances which induce anæsthesia, gases or irrespirable vapors, cause sugar to pass into the urine ; and that this passage is independent of the integrity of the pneumogastric nerves.

I will cite a fact discovered by M. Bernard, after the publication of my work, and which enters naturally into this same class.

According to him, when an animal respire chlorine, a passage of sugar into the urine takes place. Here, the chlorine acts, firstly, because it is respired in the place of air and thence diminishes the quantity of oxygen inspired, afterwards, because it disorganises the pulmonary vesicles which become unfit for their exercise.

Almost all of my experiments upon the inspiration of anæsthetic agents have been made upon rabbits. The best conditions to obtain a satisfactory result are the following. The rabbits that are bought in market are generally fatigued and badly nourished ; it is necessary to let them rest twenty-four hours and feed them abundantly with carrots. At the end of that time, we commence the experiment and obtain the sugar

* The nitric ether was rather a mixture of nitric and nitrous ether.

in a quantity proportional to the length of time that they breathe the anæsthetic agents. If one has the patience to make them breathe the ether an hour and a half, a very good result will be obtained. We commence by putting them in a complete state of anæsthesia and allowing them to recover, recommencing again the anæsthesia, and so on for five or six times successively. With simply one etherisation, a good result may be obtained, but it is better to etherise them five or six times successively.

VITAL POINT (*noeud vital?*) OF M. FLOURENS.

I promised in my first note that the *vital point* ought to play an important part in the passage of sugar in the urine, being the motor point of the respiratory mechanism; since then, thanks to the kindness of M. Flourens, who has opened the doors of his laboratory and lavished his wise counsels upon me, I have been able to assure myself that I was not mistaken in my premises.

At the posterior extremity of the fourth ventricle, between the two posterior pyramids of the medulla, there exists a small V in the gray substance, inscribed at or in the bifurcation of these two pyramids. This V, is the continuation of the gray substance of the medulla, and is also called the *calamus scriptorius*. It is in this V of the gray substance, and between the two sides of the angle formed by the V, that the vital point of M. Flourens is found.* According to him, "the superior limit of the vital point is formed by the foramen cœcum, the inferior at the point of junction of the posterior pyramids; between these two limits is found the vital point, the distance between them being scarcely a line."

M. Flourens was not contented to determine the position and limits of the vital point; he went further, and thanks to a vigorous and rational analysis, in this point hardly as large as a line, he has distinguished the demarcations. He exposes the result of his researches as follows;

"I often make the experiment, proceeding by transverse sections.

"If the section passes in front of the foramen cœcum, the res-

* Comptes rendus des séances de l'academie des sciences, vol. xxxiii, p. 438.

piratory movements of the thorax continue, while those of the face cease.

"If the section passes behind the point of junction of the pyramids, the respiratory movements of the face (the movement of the nostrils and gaping) continue, while those of the thorax cease.

"If the section passes upon the point of the V of the gray substance inscribed in the V of the pyramids or *point of the pen*, (*calamus scriptorius*?) the respiratory movements of the face and thorax cease immediately, and at the same time.

"I often make the experiment in another manner: I use a small punch, the opening of which has a diameter of scarcely half a line; I plunge this pucheon into the medulla oblongata, being careful that the opening of the instrument corresponds to and embraces the V of the gray substance. I thus isolate suddenly the vital point from the rest of the medulla oblongata pyramids, restiform bodies, etc., and immediately the respiratory movements of the trunk and face are abolished.

"Thus by experiment, the limits of this point are marked—below, by the persistence of the inspiratory movements of the head; and above, by the persistance of those of the trunk.*"

When the vital point of M. Flourens is pricked, there is always a passage of sugar in the urine; I have repeated frequently the experiment in the presence of M. Flourens, and I have constantly obtained the same result.

I took a rabbit and made it urinate. The urine was troubled as usual and did not contain sugar; I pricked the vital point, and as soon as it could urinate again, I obtained a clear urine and containing sugar in considerable quantity, and easily determined by every test.

It is an error to think that I meant to say, in my first note, that the point of the bulb that M. Bernard pricked, in order to cause a passage of sugar in the urine, was the vital point of M. Flourens. I by no means meant that, but I thought, and still think, that the point which M. Bernard pricks is under the dependence of the vital point, which has also been called by M. Flourens, central, motor point of the respiratory mechanism. It

* Flourens recherches experimentales sur les propriétés et les fonctions du système nerveux, p. 201.

is at the same time the centre of action and co-ordinator; and by coordinated movement, M. Flourens means: "all (or any?) movement which results from the concurrence, union or grouping, so to say, of several other movements, distinct and separated one from the other, and which if grouped in another manner would have given another result total."

The central point of coordination of the different acts of respiration, is the focus, so to say, from which emanate its coordinating actions, so that its action is multiple but unique. It presents unity in its multiplicity, simplicity in its complexity. I think, then, that although the point that M. Bernard pricks, be a half an inch above the vital point, the puncture made at this point intercepts some of the active and co-ordinating rays of the vital point, and that thus it is under its dependence, for it obstructs its action to reach the point where it ought to arrive in order to keep up the harmony in combining and rendering active the respiratory movements.

I forgot to remark that, when the vital point is pricked, not only the urine becomes limpid, but the quantity is considerably increased.

In my second note, presented to the Academy, the 10th of November, 1851, upon the connexion between the respiratory phenomena and the presence of sugar in the urine, I thus expressed myself:

"In a preceding note, we announced that there exists a connexion between the respiratory phenomena and the presence of sugar in the urine, in such a manner, that all substances which enfeeble the respiration in diminishing the hæmatisis produced in the lungs, are so many causes which might, in our opinion, determine the passage of sugar in the urine. We added that, according to this principle, sugar ought to be found in the urine of individuals subjected to hyposthenic treatments; to enumerate them in short, it will only be necessary to cite the generalization of M. E. Robin.

"According to him, the substances, which after death, keep up a slow combustion by means of the humid oxygen, are hyposthenics in different degrees during life. For example, the metallic salts, ethers, the salts of quinine and narcotics in general.

"Having examined the urine of persons subjected to treatments* of the bichloride, iodide and sulphuret of mercury, salts of antimony, opium and sulphate of quinine, we found sugar."

The third note presented on the 3d of December, 1851, is as follows :

"In my preceeding notes, I endeavored to establish the connexion which exists between the presence of sugar in the urine and the respiration ; in such a manner that all causes occasioning a hindrance in the accomplishment of this function, would produce a passage of sugar in the urine.

"We spoke of the hyposthenic treatment which obstructs a part of the blood from the action of the oxygen. I will add to the examples already given, that in the case of dogs subjected to a treatment of arsenic, lead, zinc, copper and the sulphate of iron, and also with patients treated with the carbonate of iron, I have always determined the presence of sugar in the urine.

"I now approach the second part of my researches. Whenever the respiration becomes troubled, either by a disease proper of the lungs, or by the effect of some other affection causing a disorder in its normal exercise, there will be sugar in the urine.

"I have determined its presence in the urine of tuberculous patients, and the quantity of it was proportionally considerable as the period of the disease was more advanced, and as the inflammatory symptoms were less intense.

"In pleurisy and chronic bronchitis there is sugar in the urine ; the same in asthma.

"It is found also in hysteria and epilepsy after the attacks.

"In cholera there ought to be sugar in the urine, for, according to the experiments of M. Rayer, the air undergoes none or scarcely any change in the lungs. It would be desirable, that, the physicians engaged in the study of this disease, would look for the presence of sugar in the urine of the patients."

We also have sugar in the urine after drinking a strong infusion of coffee.

I had an occasion to examine the urine of two drunken men and found sugar in it. We know, that after the researches of

*I knew, after the publication of this note, that M. Chevallier, had found sugar in the urine during a mercurial treatment.

Prout, alcohol is a substance which diminishes in the highest degree the exhalation of carbonic acid and thus the respiration.

Moreover, we know, that according to the experiments of MM. Bouchardat and Sandras, alcohol prevents the transformation of venous into arterial blood; the arterial preserves the colors proper to venous blood, and thus alcohol may determine all the accidents of asphyxia. These same observers have determined the presence of sugar in the venous blood of a drunken man. We comprehend then the causes which produce the passage of sugar in the urine of drunken persons, and I will add that it exists in a considerable quantity.

THE HABITUAL PRESENCE OF SUGAR IN THE URINE OF OLD PERSONS.

I made the following experiments together with M. Dechambre.

The modifications that respiration undergoes in old age, are so notable and important, that Réveillé Parise does not hesitate to consider them as the origin, starting point, and the organic cause of old age. The senile deterioration of the respiratory organs, impedes the accomplishment of hæmatosis in a proper manner, and also the production of a general calorification to the extent that a complete and normal exercise of our functions exacts.

The modifications which obstruct the respiration are: lateral depression of the thorax, anterior projection of the sternum, stiffness of the costo-vertebral articulations, induration or ossification of the cartilaginous appendices, rarified parenchyma of the lungs, thin or ruptured cellular walls, obliterated vessels. Except when, by one cause or another, the blood of old people does not contain sugar, or only in a small quantity, (which conditions were in my theory,) there can not be a more favorable condition to the production of glucosuria.* Having in view the verification of this conjecture, we made the following experiments:

First Experiment.—We chose at first, at the hospice of Salpêtrière, a woman aged eighty-one, in the last stage of decrepitude. We assured ourselves that she was exempt from any

*Is the translation correct?—HOLT.

cough or sense of suffocation, and exhibited no physical or symptomatic sign of pulmonary or cardiac affection, or any other disease capable of obstructing the respiration; so that if there was any insufficiency of combustion, it could only be attributed to the state of the lungs engendered by old age. The urine of this woman, collected in the morning, in quantity about two ounces, was at first treated by the acetate of lead, in order to separate the uric acid and other precipitable organic matters, and then placed in a filter. The filtered liquor was freed of the salt of lead which it might have retained by means of the carbonate of soda, and re-filtered. We poured in the saccharimetric liquor of M. Barreswil,* (cuprico-potassic,) and after a minute boiling obtained a very abundant reddish precipitate, (protoxide of copper.)

Second Experiment.—The same experiment was made upon the urine of five women, aged from sixty-eight to eighty-one years, in the surgical wards at Salpêtrière, one of them treated for an abscess of the arm, another for rheumatic pains, the third for a chronic affection of the skin, the two last for contusions; all of them otherwise in good health. The urine of these five women, also collected in the morning, gave a very characteristic precipitate.

Third Experiment.—In order to obtain more easily old people exempt from affections of the heart or lungs, we authorized the urine to be collected without the infirmary; we chose, on the same day, eight women who appeared to offer the requisite conditions, aged seventy, and already very decrepit; two gave only a slight yellowish shade, but little significative; six a veritable reddish precipitate.

Fourth Experiment.—Wishing to know whether the glucosuria was constant with these women or only momentary, at the end of a week, we took, a second time, the urine of seven of them comprising the glucosurics; with two there was no trace of a yellowish shade; with two others the shade was a little apparent; in the three last cases there was a precipitate.

The results so far obtained, left still some uncertainty; fer-

* Tartrate of Potassa and Copper.—HOLT.

mentation offered us a more decisive means of verification; we had recourse to it with success.

Fifth Experiment.—The urine of four women, aged from seventy to ninety-two years, was collected, after having determined with the specimens that they gave, a reddish precipitate with the liquor of Barreswill. There was about the third of a quart of urine. At first treated by the acetate of lead and the carbonate of soda, as in the preceding experiments, it was reduced by evaporation to two or three spoonfuls, then placed in contact with the yeast of beer in a retort, the neck of which was adapted to a small receiver. We took no measures to collect the carbonic acid, the formation of alcohol sufficing to test the presence of sugar. By distilling at a gentle heat, about a scruple of colorless liquid was soon produced in the receiver. The receiver was then removed and slightly heated, while a burning match was presented to the orifice; a blue flame ran along the whole length of the neck, leaving an unequivocal odor of alcohol.

Sixth Experiment.—The same experiment was made a few days after, upon the urine of six women, aged also more than seventy years. The whole quantity was two-thirds of a quart, it was reduced by evaporation to four or five spoonfuls. This time, with the first product of distillation, equivalent to about three scruples, a bluish flame was obtained which did not cease to crown the neck of the receiver for eight or ten minutes, and which left a veritable odor of punch.

The alcoholic fermentation having been evident, therefore the urine experimented upon contained a considerable quantity of saccharine principle.

It was at first the intention of M. Dechambre and myself to find, whether there was any proportion between the degree of glucosuria and the age or decrepitude of the subjects. There very probably is; but the only tests which our time, so far, has allowed us to make, have not given a satisfactory result. In the third experiment, we took care to employ in each case the same quantity of urine and the same reacting portion, and classed them according to the abundance of the precipitates; doubtless a process but little rigorous, but, however, susceptible of furnishing some valuable signs. But, this classification was not at all

conformable to the advancement in age or degree of decrepitude. Certain women, very well preserved, notwithstanding their great age, having the skin still pliant, breasts well developed, and thorax but little deformed, gave a great deal of sugar—while others, entirely dried up, gave none at all, or in very small quantity. We understand, moreover, how many difficulties such a research ought to present, when we reflect that, in the same subject, the glucosuria may disappear from one day to another, or vary in intensity, as we have seen above.

DIABETES.

I now arrive at the disease especially characterised by the presence of sugar in the urine. Certainly, one is not sick because he has sugar in the urine, but because it is only found there after a derangement of the vital functions.

We do not pretend to characterise a disease by one of its symptoms: for it has been known ever since the time of Hippocrates, who said, *una natura, una confluxio, consentientia omnia*, that the organism is a whole, an unique assemblage; that no system of the isolated parts is subservient to one function exclusively: that all the functions harmonize with each other and contribute to the same end—so that a derangement in one function reacts upon the others. However, there are some functions which are more important than others, and whose alteration causes more disturbance in the others. In disease it is to be determined, what is the function primarily altered and which has caused the other troubles. In diabetes, we think that the respiration is primarily altered, and that the other disturbances, which accompany it, are only the effect. Besides, although for the most part, diabetic patients only die from pulmonary tubercles, we often see, when they die before the period of marasmus, that the lungs are perfectly sound. We consider this tuberculisation as an effect of the profound alteration of the function, and we believe, that one of the most frequent causes of diabetes, is a derangement in the functions of the vital point of M. Flourens, it being the motor, the centre of action of the respiratory apparatus. We will afterwards examine the theory, which explains diabetes by a want of alkalinity in the blood, and also that which accounts for it by

admitting an augmentation of the production of sugar by the liver; but before that, we will show that there is really, always a disturbance in the respiration.

Firstly, the presence of tubercles.

The quantity of carbonic acid expired, diminishes in diabetes, (Coindet,) also the animal heat becomes less (Bouchardat.) We know that the quantity of carbonic acid disengaged in respiration, is less during sleep; therefore the production of heat is less during sleep, and it is for that reason that we feel the want of better covering, and are more exposed to become cold.

All things equal in other respects, the quantity of sugar increases in the urine during the night, (Coindet,) so that if in the morning when the patient awakes, his urine is examined, much more sugar is detected than at any other time of the day. I said, all things equal in other respects, for it is evident, that after a meal at which a quantity of feculent or saccharine substances have been eaten, we find the greatest abundance of sugar in the urine.

We will now see that the quantity of sugar diminishes as the respiration increases. A moderate exercise accelerates the respiratory movements, increases the quantity of carbonic acid exhaled, and the absorption of oxygen is generally triple the normal condition (Prout, Scharling, Lassaigne.) Now, the quantity of sugar diminishes, according to Bouchardat, in the urine after a regular exercise, the labors of the field, in the free air, circumstances, which as we have seen, augment the combustion during respiration.

We know that the sugar disappears in diabetes, when they are laboring under an intense fever. This fact, so inexplicable before, is easily understood, when we recollect that the quantity of carbonic acid exhaled has been increased, so that the respiration being increased, the production of heat augmented, the sugar is destroyed as well as when the patient is subjected to exercise in the open air, and as much more, as the quantity of it is less on account of the diet which the patients are obliged to observe.

As in well characterised inflammations which do not disturb the respiration, the exhalation of carbonic acid increases, it is

not extraordinary, that when an inflammation takes place with a diabetic patient, his urine should not contain sugar. I think that this explanation is more satisfactory than to say, that in order to be diabetic, it is necessary to enjoy good health.*

Let us examine the two principal theories, that have been produced upon the cause of diabetes.

1stly. That with diabetics, there would exist a continual source of sugar in the economy, independently of that taken in by means of the food. That this sugar would be formed in the liver, and its production would be so much increased, that the economy not being able to employ it, would reject it. There is an important fact against this theory, a fact which proves that the sugar rejected from the economy in the case of diabetics, proceeds from the feculent or saccharine matter ingested; for when these two substances are suppressed, the urine no longer contains sugar. All the physicians, who have had occasion to observe this cruel disease, agree upon that point. However, we will cite two authorities in support of our assertion:

“The proportion of sugar contained in the urine, is in constant conformity to the proportion of feculent or saccharine food.” (Andral, *pathologie interne*, vol. ii., p. 447.) “It is a fact, evident to me, that the urine of almost all of the diabetics, subjected for several days, either to abstinence, or an exclusively animal regimen, exhibits no trace of sugar.” (Loc cit.)

* We have already admitted, that the elements of our organs, which become unfit for their structure and functions because of their exercise, are burned by the oxygen and rejected under the form of uric acid, urea, &c. In diabetes, these substances diminish, to such a point in the urine, that for a long time their existence has been denied. That proves, that during this disease, the matters which give rise to (uric acid, &c., I suppose.—Holt) them are not burned in the economy. Here, we can easily suppose two things which are equally true: 1stly, Because of the lessening of the disengagement of heat, the quantity of vital energy and also the nutritive of our organs diminish; consequently, the materials, which give rise to the uric compounds, diminish, and we easily understand, therefore, why they are found in such small quantity in the urine; 2ndly, The respiration being diminished, the combustion of the parts of our organs, unfit for life, can not take place as well as when the respiration is in a normal state. These elements, not being able to be rejected, remain in the economy, there undergo different transformations and give rise to the purulent, gangrenous &c., deposits, that we meet with so often in diabetic patients.

"It is a favorable circumstance, and I must say, the most common one to see the urine return to its normal quantity and composition, after twenty-four or forty-eight hours of a regimen from which feculent and saccharine aliments will have been rigidly excluded." (Bouchardat, *du diabète sucré*, p. 44.) This theory produces in its favor but one "exceptional" fact, reported by M. Andral, (*Path. int.*, vol. ii., p. 450,) in which, we see a patient, with whom sugar appeared in the urine, although subjected to an animal regimen. But if it is considered that this patient was at a hospital where he could not be watched, and therefore might easily have eaten the bread of his comrades, and that moreover he was only seventeen years of age, which will explain his discarding the regimen; this fact loses a little of its value. But, even supposing that the patient took neither feculent nor saccharine substances, should we base a theory upon one exceptional fact, expose a number of observations as exceptions? It appears to us more logical to wait until other like facts be acquired by experiment, before giving an opinion.

We have said elsewhere, and we repeat it here, that the sugar being normally destroyed in the economy, when it is not, we must admit, either that its quantity has increased beyond the destructive force of the organism, or that this force has diminished. If the quantity of sugar has increased, that may be accounted for in this way, that the economy receives by means of feculent and saccharine food more of it than it can destroy, and that the economy itself produces more of it than it can consume, independently of the feculent or saccharine aliments.

In the first place, there is a kind of instinct which regulates for us the quantity of respiratory food that we need; secondly, we have elsewhere said, that the sugar which is not immediately destroyed, may be converted into fat and deposited in the economy. Experiment has proved that, if in a healthy condition one eats a large proportion of sugar, it passes into the urine, and also that takes place when glucose is injected into the veins beyond certain limits. But that is not the case with diabetics. With them, the quantity of sugar which would be destroyed in a healthy condition, appears in the urine. We must therefore admit, that it is the destructive force which has diminished, and

we know, that this destruction is under the dependence of the respiration,

As to the excessive production of sugar by the liver without feculents, we have already said why we do not think it sufficient to account for diabetes.

2ndly. This theory has for its basis, the observations of M. Chevreul, upon the influence of alkalies upon the transformation of organic matters in the presence of oxygen. M. Mialhe has observed that grape or diabetic sugar has no reducing action upon the oxide of copper, either cold or warm, and that it does not acquire its disoxygenising property until after having been chemically influenced by an alkaline substance, free or carbonated; from that he has deduced, that it is by the alkalies normally contained in the blood and the animal liquids, that the transformation of the saccharine matter is produced. If the alkalinity is no longer sufficient, the transformation cannot take place; the sugar being no longer decomposed, or assimilated, is diffused throughout the economy, becomes a foreign body, and as such is rejected through the renal glands and all of the secretory apparatus.

"Diabetes then, recognizes as its cause, a defect in the assimilation of sugar, from a want of a sufficient alkalinity in the animal economy. In a healthy man, the blood is alkaline, and ought to remain alkaline, for the accomplishment of the inter-visceral functions. But the elements of acidity, constantly introduced into the economy, would tend to predominate, if they were not counterbalanced and eliminated by the especial secretions, the sweat and urine.

"These elements of acidity are:

"1stly. The ingestion of acids themselves.

"2dly. Exclusively azotised food; meats, on account of the albuminoid matters, contain a great deal of sulphur and phosphorus; these bodies, on account of their combustion in our organs, give rise to a great quantity of sulphuric and phosphoric acids, which are spread through all our humours, there saturate at first the alkaline bases which are there met with, and end by predominating.

"3dly. Defect in the perspiration of the skin, an emunctory destined to eliminate the acids of the economy."

M. Mialhe terminates the exposition of his theory by this phrase:—"So long as the presence of glucose in the urine, of herbivorous animals, normally alkaline, that is to say, the possibility of the existence of glucose in presence of an excess of alkali is not shown, I will remain unshaken in my convictions."

If we do not entirely share the views of M. Mialhe, we will at least avow that, this theory has led him to advise a treatment, the good results of which the physicians can daily determine.

In the following points I do not coincide with M. Mialhe. In order that the sugar should be destroyed in the economy, it is evident that the presence of alkalies is necessary, but there are also other indispensable conditions. If the oxygen is not of sufficient quantity, either because of the inspiration of irrespirable gases, or the impossibility of its entering into the pulmonary canals, if the structure of the lungs is modified, etc.; in short, if all of the normal conditions of respiration are not fulfilled, the sugar will not be destroyed, whatever may be the alkalinity of the blood. As an example: I made a rabbit respire ether; his urine contained sugar, and notwithstanding it was alkaline.

Among the elements of acidity, M. Mialhe placed meat, and, nevertheless, it is this element which, as nourishment, is most proper for diabetics.

An animal regimen is useful in diabetes, because the feculents and sugar, being absent in the food, can not remain in the economy, and thence we succeed in preventing a great many of the troubles, which are the effect of this abnormal presence of sugar in the blood. But the use of meat alone meets with only a temporary good; for as soon as feculents or sugar are again taken, the alarming symptoms of diabetes return. It is evident, that it is necessary to employ an animal regimen; but also it must be endeavored to destroy the cause which hinders the assimilation of sugar.

In the theory of M. Mialhe, if it is true that he has not expressed himself, contrary to the opinion that we have just announced, upon the animal regimen, it is evident, also, according to this theory, that with an exclusive animal regimen, the patient ought to grow rather worse than better, for this element of acidity would hinder the presence of alkalies, free or carbonated, and would thus render more abnormal the composition of

the blood, which would give rise to other troubles than those which are manifested when saccharine food is taken; so that, what we would gain by an abstinence of feculents, we would lose by animal food.

The cause which determines the defect in the alkalinity of the blood, is, according to M. Mialhe, the suppression of the sweat, an emunctory destined to eliminate the acids of the economy, which, if they are not eliminated, prevent the presence of the alkalies in the blood, free or carbonated.

Under different climates, and in different periods of life, we see the sweat and urine always holding such a relation that they are always in an inverse proportion to each other. We always see that, when the sweat increases, the urine diminishes, and *vice versa*, and by this means the health is preserved, for always the same function of elimination is exercised, although by different organs. Besides the relation that is remarked in the production of these two secretions, we are convinced that they have a more intimate connexion, if the chemical composition, as well as the apparatus which served to separate them from the mass of the blood are examined and compared. In diabetes, the urinary secretion is to such an extent augmented, that we do not understand why this increase in the production of urine should not cause an equilibrium by the absence of the cutaneous perspiration. I think that this disappearance of the sweat, has been, for the most part, only the effect of the augmentation of the urinary secretion.

We can account for this augmentation of the urine, if we recollect a fact already noticed by Wœhler, that all the salts which are eliminated by the urine, render active the secretion of that liquid. The sugar, in diabetes, is a substance which can not be rendered useful by the economy and which is eliminated by the urine; it would render active the secretion of that liquid, as would any other diuretic whatever. The thirst, which accompanies the disease, would then be only the effect of the want which the economy feels for disembarassing itself of this substance, and besides, it would be inevitable, because, in proportion as liquid is introduced, the liquid would be promptly eliminated on account of the activity of the urinary secretion. Moreover, the experiments of M. Bouchardat, prove that the blood of diabetics is equally alkaline as in the normal state.

But, even supposing that this theory should not be absolutely true, it will at least have served to show, that alkalies, in rendering active and facilitating the destruction of sugar, ought to be prescribed in diabetes. It is, perhaps, because they facilitate combustion, and thence the disengagement of heat, that the alkalies are general excitants.

The alkalinity of the blood, being one of the conditions in the destruction of sugar in the economy, may become, when it is altered, a cause of diabetes.

M. Bouchardat, has lately occupied himself a great deal with diabetes, especially with a view to its treatment. We will not examine his work ; it is a little aside from our subject, which is to discover the causes of the disease.

In diabetes, the feculent and saccharine aliments are digested as in the normal state ; only, in health, they are assimilated and destroyed during the act of respiration, while, in diabetes, they are not destroyed, because of a modification in the respiration. So that diabetes may be caused by anything which produces profound troubles in the function. But, almost always its origin is in the troubles of the functions of the nervous centres which preside over respiration.

We can go further, and we will be able to find other causes of diabetes, when we will understand better the usages and means of destruction of sugar in the economy, and then we will see that anything which interferes with the normal destination of sugar, may give rise to diabetes. As, in the actual state of the science, it is to the respiration that we attribute the destruction of sugar, and as we can explain, by the troubles in this function, the cases in which the urine becomes saccharine, we will therefore admit the alteration of the respiration as the cause of diabetes.

ACTION OF CURARA.

One of the most conclusive proofs of the theory that I have just exposed, was furnished me by a fact noticed by M. Bernard after my first experiments. This fact shows, that if the nervous system plays a part in the passage of sugar in the urine, we must consider its action as intercedent in the respiration, and not as exciting the glucogenic force of the liver.

M. Bernard found, that, when animals are killed with curara, there is a passage of sugar in the urine.

This fact enters naturally into the category of those that I have before observed. The curara, in effect, acts, as is proved by the researches of Munter and Virchow, in destroying, in abolishing the respiration, so that it kills rather by asphyxia than any other way. We can prolong life, for a longer or shorter length of time, by practising artificial respiration.

M. M. Pelouze and Bernard have proved on the other hand, that the curara destroys all the properties of the nervous system. We can not then say, that it excites them in order to react afterwards upon the liver. We might object, it is true, that before destroying, the curara excites to a high degree the nervous system; but then it would be necessary, to establish one hypothesis, to prove another.

THE METHOD OF TESTING SUGAR IN THE URINE.

We may employ three means to accomplish this end. *The first*, the most important, decisive and that without which we should never draw a conclusion, is fermentation, and I think it useless to relate here the procedure.

The second, is founded upon the property of the salts of copper to be decomposed by glucose in the presence of alkalies. This procedure is mostly employed, but it is also that, which may most easily lead to error; for in employing it we may suspect the presence of sugar where it does not exist, or remain doubtful when it does exist. We must then guard against these errors. For that, it is necessary to commence by separating the albuminoid substances; which also reduce the salts of copper in the presence of alkalies. For this purpose we add to the urine the tribasic acetate of lead; we pour into the filtered liquid the carbonate of soda, to separate the excess of the salt of lead; we filter again and concentrate the liquid. It is there that we should look for sugar, by means of the liquor of Barriswil, or the tartrate of copper and potassa. Unfortunately these precautions are always neglected, because one does not wish to devote the time necessary to it. Even in operating in the above manner, it is necessary to have recourse to fermentation, in order to draw a definite conclusion as to the presence of sugar.

The third procedure is, polarisation. To obtain good results, it is also necessary to precipitate the urine by the subacetate of lead, in order to discolor it and precipitate the albuminoid principles. But it will be necessary, again to control by fermentation the result thus obtained. The use of polarisation is somewhat delicate; but fortunately those, who would wish to employ it, have at their disposal the memoirs of M. Biot and the pamphlet of the Abbe Moigno.

I ought to make the general remark that, if sugar is looked for in urine which only contains a small quantity of it, it is necessary to operate upon at least three or four ounces of urine, which must be concentrated and then treated by the above procedures.

NOTE.—I thought that I ought to abstain from all indication as to the treatment of diabetes, and it is with regret that I have seen deduced from my experiments a method of treatment contrary to all scientific results. It has been reasoned in the following manner: "If diabetes proceeds from a defect of respiration, from a diminution in the combustion of sugar, nothing would be more easy, in order to render active this combustion, than to employ an air in which the oxygen would be in greater proportion than in the atmospheric air. And to obtain a much more active combustion it will be necessary to employ inspirations of oxygen. It is possible that the inspirations of this gas have produced good results in practice; but I am sure that these effects cannot be attributed to the fact that the combustion had been increased; for MM. Regnault and Reisset have proved that the respiration of animals, of different classes, in an atmosphere containing two or three times more oxygen than the normal air, presents no difference with that which is performed in our terrestrial atmosphere. The consumption of oxygen is the same, the connexion between the oxygen contained in the carbonic acid, and that consumed, undergoes no sensible change; the proportion of azote exhaled is the same; in short the animals do not appear to perceive that they are in an atmosphere different from the ordinary one. I think that if an augmentation of the respiration by changing the composition of the air was desired, it would be necessary to replace a part

of the azote by hydrogen and give to the patients to breathe a mixture of oxygen, azote and hydrogen, for then the consumption of oxygen is greater. But nevertheless I abstain from taking the responsibility of this indication, and if I have thought necessary to make it, it is because it is the only way in which the composition of the air can augment the consumption of oxygen.

ARTICLE IX.

A Case of Spinal Meningitis, treated with large doses Quinine.

By S. Z. TATOM, M.D., of Coweta county, Ga.

Mrs. B., æt. 34, was delivered of her sixth child, 10th June, 1853, by a midwife, and did well until the 14th, when she was attacked with epidemic dysentery. I was called to see her. Operations every fifteen or twenty minutes; muco-sanguineous; tormina and tenesmus great; pulse 110, quick, small; tongue coated around the edges and tip; skin dry and hot; hypogastricum tender; lochia scanty and offensive; strength exhausted.

Treatment.—℞. Opii., gr. $\frac{1}{2}$; Acet. Plumb., grs. 2; Camphora, gr. 2: to be given every two hours, according to circumstances. Enema tinct. opii, acetate plumbi, and starch; warm fomentations over abdomen; vaginal injections, with diluted milk 98° Fahr. Continued above treatment, with but little variation, until the 18th; dismissed case.

June 24th. I was called to see patient. Found the flexor muscles of extremities rigidly contracted, those of face occasionally twitching; tongue partially paralyzed; voice indistinct; formication, tingling, &c.; perspiration and deglutition difficult; drawing sensation in the region of diaphragm; countenance anxious; pulse 80, regular, small and soft; skin cool, soft; bowels regular; lochia natural; abdominal tenderness subsided; tongue good; three inferior cervical and two superior dorsal vertebræ very tender on pressure.

Treatment.—℞. Opii., gr. $\frac{1}{2}$; musk, grs. 2; quinine, grs. 2; made into pill. One every 2½ hours. Cups over tender part of spine, followed by blister, and stimulating liniments to spine and extremities.

June 25th, 8 o'clock, A. M. Found patient as I left her. Continue same treatment.

June 26th, 9 o'clock, A. M. Patient is worse; says she will die. Diarrhœa copious; paroxysms of dyspnœa, resembling that of croup; croupal sound; excruciating pain in the region of diaphragm; "feels as if something was drawing her in two;" deglutition almost impossible; abdominal muscles contracted; can't straighten herself; sits in half recumbent position; pants for breath; fist firmly clenched; legs flexed upon thighs; feet drawn; toes at almost right angles to feet; pulse 110, small and weak; tongue red; skin dry and hot. Prescribed, enema: Tinct. opii., acetat. plumbi. and starch, in cold mucilage, which arrested diarrhœa. Having exhausted my catalogue of narcotics and antispasmodics to no avail, I tried galvanism, the warm bath, and a host of adjuvants; but patient continued to grow worse until 10 o'clock, A. M., next day (27th). Another physician was sent for; but before he arrived, as patient was apparently near her dissolution, I determined on venesection and large doses of quinine, as a dernier resort (which was concurred in by the Doctor, on his arrival). She was accordingly bled from the arm 10 oz.; pulse began to fail. Prescribed: Quinine, grs. 15; sulph. morphia, gr. $\frac{1}{4}$; in solution, every hour, which was continued fifteen hours; at the expiration of which time, every muscle was relaxed; breathes easy; says she feels well; but thinks she "can't hear good; will soon get fat on that bitter medicine." Continued the same treatment for two days, but in modified doses. The patient, however, swallowed an ounce of quinine in the space of three days, and with proper treatment directed to the spinal meningitis, (complicated, perhaps, with myelitis,) was restored to health.

Thus was a daughter, wife and mother, rescued from the iron grasp of death, by heroic, and, I might add, empiric doses of quinine.

ARTICLE X.

A Fatal Case of Puerperal Convulsions. By Z. P. LANDRUM, M. D., of Lexington, Ga.

Was called to Mrs. L., on the first January, 1854, about one o'clock. Found her in the first stage of labour, suffering very much from the pains attendant on this stage. Upon inquiry,

ascertained that her pains commenced about 8 o'clock, and had recurred regularly with diminished intervals. An examination per vaginam revealed the head of a child presenting in the first position, os uteri dilated to the size of a dollar, and mucous secretion from vagina profuse. Expulsive pains commenced about 7 o'clock, P. M., irregular and ineffectual for two or three hours, and then subsiding almost entirely. At 10 o'clock, gave her an opiate, and feeling unwell, retired to bed, leaving instructions with an old midwife to wake me up if any thing unusual occurred. Was aroused about two o'clock, and found my patient staring vacantly, with pupils much dilated, and slight twitching in the muscles of her mouth. She went off immediately into a convulsion, which was relieved by opening a vein in her arm and permitting it to bleed until she began to recover. Pains increased in violence and regularity, until she was delivered of a male child. The womb not having been diminished much in bulk, I was led to suspect a plurality; which suspicion was confirmed, by detecting on examination, per vaginam, another head, presenting in the same position as the first. She was delivered of a second fœtus, female, about an hour and a quarter after the birth of the first, and appeared remarkably well, considering the length of labour and suffering. Expressed sorrow at the death of her children, both of which were still-born, but made no complaint of head symptoms—nor could I detect any thing in her appearance forewarning a return of the convulsions. I had retired but a few minutes, when I was summoned again to my patient, and found her going off into another convulsion. The external and internal recti muscles of the eyes were acting alternately, throwing these organs from one side to the other of the orbits. During this convulsion, I attempted the delivery of the placentas, and was constrained to detach the entire connecting surface of both, before I could succeed. This convulsion was undoubtedly apoplectic, there having been but little agitation in her muscular system. She soon passed into a comatose state, with stertorous breathing, and death closed the scene in about half an hour.

There was nothing unusual in the appearance of the second child, but the features of the first were very much distorted, the corner of its mouth being completely drawn to one side.

Professor Mettauer is an eminent and successful practitioner, whose views are entitled to high regard. The following contributions will therefore be doubtless found useful to many of our readers.—[EDITOR.]

Contributions to Pharmacy. By JOHN P. METTAUER, M. D., LL. D., of Virginia, Professor of the Principles and Practice of Medicine and Surgery, in the Medical Department of Randolph Macon College.

It will not be denied that the operation of therapeutical agents is essentially influenced by the mode by which they are prepared.

This fact, so generally true, is particularly exemplified in the preparations of cinchona, cantharides, colchicum, guaiacum, and several other medicinal substances of which I shall speak presently.

For more than twenty-five years, my attention has been particularly directed to this subject, and, during this period, I have adopted several new methods of preparing some of the articles of the materia medica, and have satisfied myself, by repeated practical trials, that these preparations possessed superior efficacy to those generally employed.

Many years ago I prepared an acetous infusion of cantharides,* for blistering purposes. This infusion was first designed for vesicating the scalps of infants, without removing the hair; and its action was very satisfactory. It was applied simply by wetting the surface of the head, and the hair nearest its roots, and then carefully covering the parts with a cabbage leaf, or oiled silk, to prevent the too sudden evaporation of the blistering fluid. When other parts of the body were to be blistered, a thin compress of bibulous paper, or cloth saturated with the infusion, was applied to them, and carefully covered with oiled silk. To insure speedy and effective vesication, I usually re-applied the tincture two or three times, after intervals of half an hour. I found this agent equally as efficient and certain in its action with adults as with infants. It rendered the removal of the hair unnecessary, as it blistered every part of the surface, even when a very thick head of hair existed. This preparation has been used by many of my medical friends, and with entire satisfaction. Within the last ten years, I was induced to prepare an æthereous solution of cantharides† as a vesicant, and have found it far more prompt

* R. Canth. contus., ℥iiss.; Acid acet., Oij. Digest for 14 days, and filter.

† R. Cantharid. contus., ℥iij.; Spirit. æth. nitric, Oii. Digest for 8 days, and filter.

and certain in its operation than the acetous infusion. It may be applied in the same manner as the latter. Frequently, merely wetting the skin with the solution, without covering the part, will blister; especially in infants. When adults are to be blistered, the preparation should generally be applied with a thin compress, and carefully covered, as already suggested,—moistening the compress from time to time, until the skin is decidedly reddened. I have found this by far the most convenient and reliable means of blistering that I have ever employed. This æthereal tincture of cantharides is also an efficient internal remedy. As an emmenagogue and diuretic it has greatly exceeded my expectation. The ætherous menstruum seems not only to promote the operation of the cantharidin upon the genito-urinary organs; but at the same time to guard against strangury. I now use this preparation of cantharides almost exclusively, both externally and internally, when the lytta is indicated, and have done so for seven or eight years.

The remarkable efficacy of the ætherous preparation of the Spanish Fly induced me, five years ago, to employ spirits of nitric æther as a menstruum for cubebs, colchicum, guaiacum, squill, ergot, gossypium, sanguinaria, ipecacuanha, digitalis, nux vomica, and some other articles of less importance. The ætherous tincture of cubebs* is a most valuable remedy in all the sub-acute inflammations of the bladder, of the uretha, of the uterine cavity, and of the mucous lining of the stomach and intestines. It should be administered in some mucilaginous vehicle.

The tincture of colchicum† is applicable to the treatment of all of the cases demanding the use of the colchicum, and is decidedly preferable to the vinous seminal tincture now in use, by reason of its tendency to act on the urinary system. It is very well adapted to the treatment of sub-acute rheumatism, gout, œdema, and neuralgic rheumatism, especially if the urinary secretion is materially diminished in quantity. In the bloating occasionally connected with dysmenorrhœa, a combination of this tincture with the ætherous tincture of cantharides, sanguinaria and gum guaiacum will be found a most valuable remedy. It should be taken three or four times daily in an infusion of pine tops, in doses of ten to twenty drops each. The same combination will also be found valuable in the sub-acute stage of gout and rheumatism.

*℞. Pip. cubeb. contus., ℥iv.; Spirit. æth. nitric, Oij. Digest for 8 days, and filter.

†℞. Sem. colchic. contus., ℥iv.; Spirit. æth. nitric, Oij. Digest 10 days, and filter.

The ætherous tincture of gum guaiacum* is superior to the preparations of that article now in general use in the treatment of rheumatism by reason of its tendency to act on the urinary system; and the same may be said of it as an emmenagogue when there is rheumatic irritation of the uterus as an associate cause of dysmenorrhœa.

The ætherous tincture of squills† is adapted to all cases in which squills are indicated, and is an elegant preparation. In dropsy, œdema of the mucous lining of the larynx, and of the lungs, in asthma, and as an expectorant and diuretic it will be found a most convenient and valuable preparation. A combination of equal parts of this tincture and of the syrup of lobelia inflata taken three or four times daily, in doses of 3ss. to 3j. each, is the most efficient remedy I have ever used in asthma.

The ætherous tincture of ergot‡ is best suited to cases of inaction or torpor of the uterus connected with debility or exhaustion; it may be used either as an emmenagogue or as a parturient. In uterine hæmorrhage, or menorrhagia dependent on debility, or exhaustion of the uterus, it will be found a valuable remedy. Its action upon the uterus is greatly influenced by the ætherous menstruum. It is best to give it in some diuretic vehicle, such as pine tops tea, or flax seed or elm tea; and it may be taken in doses of 3ss. to 3ij. once in four or five hours.

The tincture of gossypium§ is possessed of properties very similar to that of ergot and may be employed in like doses with it, and in similar diseases.

The tincture of sanguinaria|| is valuable when combined with the tinctures of cantharides, gum guaiacum, colchicum, cubebs, and indeed any other emmenagogue, in the treatment of dysmenorrhœa. It is also a valuable expectorant and diaphoretic in pneumonia, bronchitis, and œdema of the mucous lining of the air passages. It is administered in doses from 3ss. to 3ij., once in three or four hours. This tincture may also be employed alone as a diaphoretic and expectorant.

The æthereous tinct. of ipecacuanha¶ is so closely assimilated

* R. Guaiac. gum. resin, ℥iv.; Spirit æth. nitric, Oij. Digest 8 days, and decant.

† R. Scill. maritim. contus., ℥iv; Spirit æth. nitric, Oij. Digest 8 days, and filter.

‡ R. Ergot. contus., 3ij; spirit æth. nitric, Oj. Digest 10 days, and filter.

§ R. Gossypii. herbac, ℥iv.; Spirit. æth. nitric, Oij. Digest for 10 days, and filter.

|| R. Sanguinar. canadens. contus. ℥iv; spirit æth. nitric., Oij. Digest 8 days and filter.

¶ R. Cephael. ipecac. rad. contus., 3ij.; spirit. æth. nitric., Oij. Digest 8 days, and filter.

to the tincture of the sanguinaria in its therapeutical properties, as to be applicable to the treatment of the same diseases. It is an elegant and most convenient preparation. In typhoid fever it will be found far superior to the ipecac pill as a diaphoretic, especially when the tongue is dry and the thirst urgent. It may be used also in typhus fever, or indeed in any febrile affections during the sub-acute stage. This valuable preparation acts both as a diaphoretic and diuretic in these cases, as well as an expectorant.

The æthereous tincture of digitalis* is a far better preparation than the alcoholic, on account of its greater activity; and this it derives chiefly from the æthereous menstruum. In doses from ʒss. to ʒj., in some diuretic infusion, taken three times daily, it will be found well adapted to all such cases as require the foxglove.

The æthereous tincture of nux vomica† is especially indicated in the treatment of seminal debility, or to speak more properly, debility of the generative organs. In this, the gravest of human ills, after such preliminary treatment as may be demanded for the correction of constipation, and prostatic tenderness, this tincture will be found a most excellent means of restoring the erections. It is also valuable in exciting appetite for food, and in the invigoration of the digestive organs. This preparation is well adapted likewise to the treatment of paraplegia, especially when the bladder and rectum are implicated, as well as such other forms of paralysis as demand the nux vomica or its alkaloid. It may be given in doses from ʒss. to ʒiss. three times daily, before or after meals, in some bitter infusion. The cold infusion of wild cherry bark I have generally preferred as the vehicle for it.

The æthereous solutions or tinctures are more readily prepared, requiring to be digested for a less time than the alcoholic, and keep without the least deterioration. They are also adapted to those conditions of the constitution in which alcoholic menstrua would be objectionable.

Hydrargyrum cum creta. This valuable preparation of mercury is usually formed by triturating ʒiij. mercury with ʒv. of prepared chalk, until the globules are extinguished. This is a tedious process, and the resulting powder is not of uniform strength, nor is the mercury completely rubbed down. Indeed, it is questionable whether the powder, when apparent-

* R. Digital. purp. fol., ʒiss.; spirit. æth. nitric., Oij. Digest for 10 days, and filter.

† R. Nucis vomicæ pulv., ʒij.; spirit. æth. nitric., Oij. Digest 10 days, and filter.

ly well formed, always contains mercury, as a compound may be readily formed by uniting other colouring substances with chalk, to imitate blue mercurial powder; and I think I have met with such imitations several times. The blue powder that I have procured from the shops has generally disappointed me; and for a number of years I have prepared it myself according to the following method:

Take one part of pure starch: eight parts of prepared chalk; and sixteen parts of mercury. Reduce the starch to fine powder. The chalk may now be added, and after being well mixed, the mercury can be united. The powder must next be moistened with water, but not to the extent of wetting it; and the whole rubbed until nearly dry, when the mass should be again moistened and rubbed dry. In this manner the process must be repeated from time to time, as may be convenient, until the powder assumes a uniform bluish appearance. After the chalk seems to be saturated with the mercury, rub the mass perfectly dry, and then moisten it sufficiently to make it adhere to the surface of the mortar by pressing with the pestle. By carefully passing the pestle over the adhering mass, so as to render its surface smooth, the superfluous mercury will now escape from it in small globules and fall to the bottom of the mortar, and the separation may be facilitated by striking the bottom of the mortar against the table repeatedly, and by pouring the mercury over the surface of the mass where any globules appear. The mercury may now be removed from the mortar; and as soon as the mass becomes sufficiently dry, the trituration must be renewed and continued until the mass becomes a smooth, dry powder. Prepared according to this method, I have used blue powder in my practice more than twenty-five years, and have uniformly found it far more certain in its operation than that obtained from the shops. I prescribe it in the ordinary doses, or nearly so, and yet I am satisfied it is stronger than that in general use. I invariably direct it to be administered nearly dry, united with brown sugar, and to be mixed in a cup by stirring the powder and sugar together with a straw or the point of a knife. The dose may then be taken into the mouth and swallowed, first with the saliva, and afterwards with a mouthful of water. This powder should never be mixed in a silver spoon, or any other utensil possessing an affinity for mercury, or the powder may be rendered entirely inert; and such an accident once befell a patient of mine, who nearly lost her life before the cause of the failure of the medicine in producing its proper effects was discovered.

[*Virginia Med. and Surg. Journal.*

Philosophy of certain Dislocations of the Hip and Shoulder, and their reduction. Read before the Detroit Medical Society. By M. GUNN, M. D., Prof. of Surgery in the University of Mich.

The views here advanced I have taught for the past two years to the gentlemen composing the Medical Class in the University; and I shall offer no apology for calling the attention of the Society for a few moments this evening to the subject of Dislocations of the Hip and Shoulder, and more particularly to that form of the accident, which, from the anatomical peculiarities of the joint, is one exceedingly difficult to reduce; and for the reduction of which Dr. Reid has but recently proposed a novel and efficient mode.

It is not my intention to discuss the question of priority which has been raised in reference to this subject, for there can be no doubt that Dr. Reid arrived at his conclusions by a course of reasoning and experiment; and that those conclusions were most essentially novel to a large majority of the profession. I propose rather, briefly to consider the prominent peculiarities of the joint, and the relation of the parts in a state of dislocation; the structures which oppose the return of the head of the femur to the acetabulum; the manner in which Dr. Reid's manipulations overcome this opposition; and lastly, the application of the principle involved, to the reduction of some other dislocations.

The encircling ridge which gives depth to the cotyloid cavity, presents upon its outer slope a plane, the inclination of which varies in different parts. At its posterior portion this inclination is very great, and it would seem in dislocation in this direction impossible to return the head of the bone to the cavity without lifting it completely over the ridge; upwards and backwards it is more gradual, and would seem to afford a much more easily surmountable obstacle; yet when we examine the relation of the parts in a dislocation in this direction, we find that applied to this surface, we have the anterior and inferior surface of the head and neck of the femur, the rotundity of the head corresponding with the curvature of the slope, while the edge of the acetabulum corresponds with the curvature described by the anterior and inferior surface of the neck. Although thus seemingly locked together, comparatively slight extension in the line of dislocation would cause the head to ride over the edge of the cavity, were it not bound down in this position by the surrounding tissues. Which particular tissue constitutes these bands is an important question to him who seeks to relax them. Dr. Reid, in common with

the profession generally, considers the muscles the agents which thus oppose our efforts at reduction, and his manipulations are conducted with a view to relax them, while the femur acting as a lever, the head of the bone is raised clear of the edge of the cavity. With this same view we have the directions of the books and public teachers to apply extension and counter-extension *slowly* and *uniformly* in order to *tire out* the rebellious muscles. Blood-letting, antimony, and the hot bath are also called in to aid in this laudable crusade against these wicked organs.

In this view, I would respectfully differ with Dr. Reid, the teachers, books and profession, and state my honest belief that the muscles oppose our efforts very little more than they do the progress of our earth in its orbit. This belief I have repeatedly verified by experiments upon the dead subject, and the members of the medical class of 1851-2 in the University will remember those conducted before them. A subject was placed upon the table, the lower border of the gluteus maximus was raised, and a scalpel carried through the subjacent muscles, and an opening made in the posterior and superior portion of the capsular ligament. The round ligament was then divided, and the head of the femur luxated upon the dorsum of the ilium. The usual indications of this dislocation were present. The subject was placed in the proper position, a counter-extending band applied to the perinæum and fixed; the strength of two men exerted now upon the extending band, while endeavor was made to raise the head of the bone clear of the acetabulum with a jack towel, was insufficient to reduce the luxation. Reid's method of manipulation readily replaced the bone. This experiment was repeated many times, and uniformly with the same result. As *muscular action* could not have opposed our efforts and prevented success in this case, the question naturally presents itself, what structure stood between effort and success? I answer, *the untorn portion of the capsular ligament*. In support of this view, let us consider for a moment the position of the limb at the instant of escape of the head from the socket during the process of dislocation. To do this we must bear in mind that force applied to the knee or foot while the limb is in a state of adduction, constitutes the most frequent cause of this dislocation. Force thus applied adducts the limb still more powerfully before dislocation takes place, and at the moment of the escape of the head of the bone from the socket, the limb is in a direction which crosses the thigh of the opposite side. Immediately that the head of the bone has cleared the edge of the acetabulum, it settles into its position upon the dorsum of

the ilium, and the limb assumes the position and direction indicative of the accident. During the dislodgement of the bone, the superior and posterior portion of the capsular ligament is ruptured, through which the head protrudes; while from the position of the limb at the instant of protrusion, the anterior and inferior portion is very much relaxed, thus allowing the head to ride easily over the acetabulum. As soon as the head settles into its position upon the dorsum of the ilium, the direction of the limb is changed, and the untorn portion of the ligament becomes more tense, and for this reason the head of the bone cannot be readily returned to its place, till the limb is again placed in a position to relax it. Dr. Reid's method does this most effectually, and I conceive that any other plan which does not accomplish this, as for instance extension and counter-extension by the pulley, or Jarvis's apparatus, in the usual direction, succeeds only by lacerating much more extensively, if not by actually tearing the ligament completely asunder, before the head of the bone will ride over the edge of the cavity.

The principle, then, I would seek to establish, is this—that *in luxations of the hip and shoulder, the untorn portion of the capsular ligament, by binding down the head of the dislocated bone, prevents its ready return over the edge of the cavity to its place in the socket; and that this return can be easily effected by putting the limb in such a position as will effectually approximate the two points of attachment of that portion of the ligament which remains untorn.*

This principle can be successfully applied to the reduction of the backward luxation of the femur into the ischiatic notch, and also to the several luxations of the shoulder. It has several times been my guide in the reduction of the downward dislocation of the humerus into the axilla. The patient is seated upon the floor, an assistant slowly raises the arm to an angle of forty-five degrees to the plane upon which the patient is sitting; and now while the assistant makes extension in this direction, the surgeon makes pressure with the hand upon the top of the shoulder, the bone readily returns to its place, and the arm is dropped to the side and secured in a sling.

White's method of reducing this luxation, which is figured in Druitt, is essentially the same, the only difference being in the position of the patient. According to his plan the patient lies upon his back, the scapula is fixed by a counter-extending band applied to the top of the shoulder, or by the hand of an assistant, while "the arm is raised from the side, and drawn straight up by the head, till the bone is thus elevated into the socket." In either method it will be seen that the upper and untorn portion of the capsular ligament, by the elevation of the

arm is very much relaxed, thus giving a latitude of motion to the head which greatly facilitates its return, and which could not be obtained by any manipulation in which this relaxation was less perfect. Nine-tenths of the force spent in extension and counter-extension may be spared, in the reduction of all those dislocations in which, by alteration of the position of the limb, such relaxation is effected; and in the several luxations above specified this end is undoubtedly attainable.—[*Peninsular Journal of Medicine*.

Two Cases of Traumatic Tetanus, successfully treated by Ice.

By B. D. CARPENTER, M. D., of Patchogue, Suffolk County.
Long Island.

CASE I. Aug. 22d, 1849.—E. G., aged 16 years, of good constitution and habits, jumped from a fence on the stump of a twig some half inch in diameter; which made a wound in the ball of the right foot three-fourths of an inch deep. Twelve days after the accident he complained of feeling lame and stiff; during the night, was awakened by a violent spasm; the next day, complained of stiffness and soreness of the muscles of the neck and throat, and pain at the scrobiculus cordis; the following night, during sleep, was seized again with spasm; and the next morning, when I was sent for, I found him complaining of pain in the above region, great rigidity of the whole muscular system, attended with difficulty in swallowing and constraint in moving the head and jaws, and in articulating. During the spasm, the body was curved backwards and thrown to one side, the dyspnœa was considerable, pulse full and slightly accelerated, skin warm and moist, bowels costive, urine scanty and high-colored.

Administered a purgative, which was assisted by enemas. The patient was then put upon the free use of opium in the shape of Dover's Powder, and the bowels kept open by the use of cathartics and injections of $\frac{3}{4}$ 1 tinct. assafœtida, in half a pint of soap suds, repeated as often as the preceding one came away. This treatment was continued for four days, during which time he gradually grew worse. The tetanic rigidity and spasm increased until the sixth day; when, finding he must die unless something farther could be done to allay the pain and extreme spasm, and viewing the difficulty as being an irritation of the spine, perhaps connected with congestion of the membranes covering the spinal marrow, I determined to apply ice to the head and the whole length of the spinal column, since the whole muscular system was affected. I did so, and in ten minutes had the satisfaction of seeing the pulse come

down from 110 to 75, and all the urgent symptoms relieved; the rigidity was gone, and he had but one spasm after the ice was applied; his bowels were kept open, and assafœtida injections were continued twice a day, to allay the irritability of the nervous system, manifested by slight twitchings. No medicines were given by the mouth. The wound entirely healed, and in three days the patient was discharged cured; and his health since has been as perfect as before the attack.

CASE II. Aug. 11th, 1853.—A. C., 21 years of age, a robust farmer, in good health, in assisting to remove some old lumber, stepped on the point of a rusty nail, which entered the hollow of the foot to the depth of three-fourths of an inch. The wound was not very sore, and was dressed with some simples by himself; and he remained at work moderately until the 16th, five days after the accident, when he complained in the afternoon of twitching in that foot and slight pain in the region of the wound and leg of that side. Was quiet the rest of the day, and retired early to bed, but slept none from restlessness, anxiety, and slight pains and twitching of the nervous system. On the 16th, felt some pain in the head and through from the lower end of the sternum to the back. I saw him at 6 P. M., and found him complaining of pain as above mentioned, which had gradually increased at the sternum, great rigidity of the muscles of the left side of the neck, accompanied with slight dyspnœa and some difficulty in swallowing. Even at this time there was present the peculiar expression of countenance found in tetanus. Pulse 100 and hard; bowels costive; had eaten nothing; the wound had not commenced to heal, and was covered slightly with a thin serous discharge. Made a free incision into the wound, and dressed it with bread and milk poultice, to which tinct. opii was added; ordered ten grs. of calomel with ten of rhei, to be followed by pil. colocynth. comp. until the bowels were freely moved, and enemas of tincture of assafœtida, ʒj every three hours, or as often as the preceding one should be voided, large doses of Dover's Powder by the mouth, and to have the neck bathed in camphorated oil and tinct. opii. 18th, 7, A. M., found that the bowels had been freely moved, and that spasm of the whole muscular system had commenced. About 3, A. M., pain in the neck and at the sternum increased, and there was great rigidity of the muscular system generally, dyspnœa great, much difficulty in swallowing and articulation, jaws partially closed, entirely so during the spasm, pulse 120; indeed, all the symptoms increased in a marked degree, with slight delirium. Ordered one-fourth of a grain of morphine every hour, and to continue the assafœtida injections. 6, P. M., all the symptoms greatly aggravated, pulse so small and fre-

quent that it could not be counted, jaws closed, breathing extremely difficult, body almost constantly drawn backwards or forwards and to one side, face pale, skin moistened with clammy sweat, and perfect rigidity of muscular system. Had slept none for 48 hours. Applied ice to the head and whole length of spinal column; in twenty minutes the pulse came down to 100, the skin was covered with profuse perspiration, the muscular system relaxed; in short, there was a perfect yielding of all the urgent symptoms, and the patient slept soundly and pleasantly for the succeeding two hours, during which time the breathing was natural, and there was neither tetanic rigidity or spasm. When he awoke there was still some delirium, the pain in the region of the sternum was very great, and for half an hour the tetanic rigidity and spasm were considerable. The ice was again applied, when the symptoms immediately yielded, and the patient (with the exception of short intervals) slept quietly the balance of the night.

17th, 6, A. M., the bowels were moved by the assafoetida injections, the delirium had passed off, the tetanic rigidity was gone. Pulse 80, breathing natural but said there was great soreness of the chest and all the muscles of the body. Drank some soup, continued the ice and injections as before. 11, A. M., there was some slight twitching of the muscles, without rigidity; from this time the patient continued to improve without either tetanic rigidity or spasm until, on the 25th, he was discharged cured, with the wound nearly healed.

The ice was applied from ten to thirty minutes each time, with intervals of from two to eight hours.—[*Ohio Med. and Surg. Journal.*

Aphonia of Four Years' Standing, cured by Electro-Magnetism. By F. K. BAILEY, M. D., Almont.

Mrs. S——, aged 79, in the spring of 1849, had a severe attack of Bronchitis, which was relieved by appropriate treatment.

On regaining her general strength, however, her voice was at times very hoarse, and at the close of the day it was difficult to speak loud at all. In the course of six months from the first attack, there was a complete Aphonia, which continued until last April.

At that time she was induced to make a trial of Electro-Magnetism. In a few days after this means was tried, her voice became more distinct, but very rough at first. In the course of a week or two, speech was natural, and has continued until the present time.

The favorable result in this case may lead to the use of Electro-Magnetism in other affections produced by want of proper innervation. I will add, the apparatus used was one manufactured by Charles Crosman, Detroit.—[*Peninsular Journal of Med.*]

EDITORIAL AND MISCELLANY.

An Inquiry into the Nature of Typhoidal Fevers ; based upon a consideration of their History and Pathology. By HENRY F. CAMPBELL, M. D. Presented to the American Medical Association, at its session of May, 1853.

Typhoid fevers have at all times engaged a large share of attention, and there is perhaps no disease which has enlisted more talent and patient investigation than this. Yet its pathology is the subject of as great discrepancy, and its treatment of as much empiricism, as any in the nosological catalogue. Whether the essay before us will furnish the profession a satisfactory solution of the long mooted questions or not, remains to be determined. The argument is certainly very plausible, and cannot fail to arrest the attention of pathologists. We regard the appearance of any thing new upon Typhoid fevers as peculiarly opportune, since they are becoming daily more and more within the domain of Southern practitioners, who constitute the great mass of the readers of this Journal. It affords us pleasure, therefore, to present the following notice of Dr. Campbell's very interesting work.

The design of the essay is to demonstrate the dependence of Typhoidal fevers upon an abnormal condition of the ganglionic or sympathetic system of nerves. In the accomplishment of this purpose, the writer first presents a critical analysis of the symptoms and pathological lesions observed in these fevers, and then studies the anatomical and physiological relations of the nervous system of organic life. From these premises naturally flow the pathological deductions which are, however, so ingeniously wrought out that, in order to do full justice to the author, we append them in his own language.

“Having thus carefully recounted the more important features in the anatomy and physiology of the sympathetic system, it remains but to consider them in connection with the phenomena of typhoidal fevers. Such a review will be attended with the following results: In the first place, the essential symptoms of typhoid

fever are located in organs deriving their innervation principally, and in many instances entirely, from the ganglionic system. In the organic or involuntary muscles—as for instance the *heart's*—of which, during life, we find the frequency increased, the force diminished, and the regularity impaired—all of which effects must be plainly attributable to the *altered innervation* of the organ. After death, we have seen it the subject of very material alteration; its substance is flabby, pale, and much softened, so that it breaks readily under the fingers. Instance again, the *muscular coat* of the intestine; we have *meteorism*—an almost invariable symptom in typhoid fever—and which we may legitimately refer to the loss of *tonicity* in the muscular coat of the intestinal canal, from impaired innervation of that coat, by which condition, together with the altered state of the secretory surfaces, the passive accumulation of gas in the intestines is allowed, and hence the tympanites.

“That this altered condition in the innervation of the organic muscular fibre does exist, is shown most remarkably in the mode of dying in some cases, viz., that mode termed *asthenia*, ‘occasioned by causes acting directly on the circulatory forces, affecting the *vis nervosa*, upon which the contractile property of the heart depends.’* and farther, that this depression in the involuntary muscles has no invariable correspondence in the state of the voluntary muscular system; as we shall find remarkably illustrated in the observations of Dr. Flint.† ‘In some of the cases attended with most danger, and some of them ending fatally, the *muscular strength was retained in a surprising degree*. In two fatal cases of the typhoid type, characterized by active persistent delirium, the muscular efforts were almost constant and quite strong up to a few hours before death. One of these cases terminated on the ninth day, and the other on the third day after coming under observation. The mode of dying in each was by *asthenia*, or, perhaps, more properly, *necræmia*; the *system of involuntary muscles exhibiting reduction of force to a degree incompatible with life—the voluntary muscles remaining active*. This is a curious fact.’

“This relative condition of the voluntary and organic muscular systems, appears to impress even the observing and philosophic mind of Dr. Flint as almost inexplicable; and it is not surprising that it should, when we consider that his views of the pathology of typhoid fever have no fixed or definite reference to the organic system of nerves; but, on the admission of the ganglionic pathology of the disease, the full interpretation of these phenomena, besides many other similar facts (*meteorism*) before inexplicable, become easy and natural.

“II. Besides the organic muscular system, which we have just shown to be under the influence of ganglionic nervous aberration, we find that the other characteristic phenomena of typhoid fever refer to the functions of nutrition and secretion, both of which important processes depend upon the vascular system, which, especially in the viscera, is admitted to be under the sole dominion of the sympathetic nerve. And, what is more remarkably illustrative of this fact, is, that

* Flint, p. 125.

† Reports on Continued Fever, p. 59.

there appears to be a very close relation between the amount of disease observed in any particular portion of the organism—the alimentary canal for instance—and the degree to which it is indebted to the ganglionic system for its innervation; thus we find but a small amount of disease, congestion, seldom any ulceration, in the *larynx*; ulceration is somewhat more common in the pharynx, œsophagus, and stomach, though still not abundant. It disappears in the *duodenum*, which receives but few sympathetic filaments, and again appears in the upper portion of the *ileum*, increasing, as we descend, in *direct proportion* to the amount of ganglionic fibres the part receives, till it reaches its maximum in the lower portion, where the nervous supply is very abundant; after which, we find ulceration *occasionally* in the cœcum, still less frequent in the colon, till in the *rectum*, whose innervation is principally from the cerebro-spinal system, it is never observed. So, likewise, with regard to the other organs; we find the *liver*, *lungs*, and *spleen* are all subject to congestions, which can be referred to the same abnormal innervation of these viscera.

“From the relative unfrequency of disease in certain portions of the abdominal viscera, and elsewhere, Louis, as we have seen, though admitting their diagnostic importance, is disposed to view them as results, secondary to the lesion in the ileum; we cannot, however, agree with him, but are compelled to regard them as the *common primary results* of a *common cause* which exists in the ganglionic system, and that the frequency or the gravity of disease in any one of these organs is determined alone by the amount to which the *ganglionic ingredient* mixes with, or enters into its innervation, and that disease in these localities has no etiological reference whatever to that in the ileum; but, when it exists, is as significant of the true pathology as is the ileitis—for it invariably indicates, both by its location and character, that its origin is *abnormal innervation*.

“So far then as regards the *localities* in which the manifestations of typhoid fever occur, we have found an exact correspondence with the distribution of the sympathetic nerve, as likewise between the *amount* of disease and the proportion of this kind of innervation in any given parts. Now it will be our object to examine carefully, in order to ascertain if there is any analogy between the *character* of these typhoidal phenomena, and those results which have been obtained by experiment upon this system of nerves. In this interesting department of physiological inquiry, there have been many engaged, but a few will answer very well the purposes of our comparison. As early as the year 1732, Pomfour du Petit found that the *division* of the trunk of the sympathetic, opposite the fourth or fifth cervical vertebra in dogs, was very rapidly followed by great disturbance in the circulation of the eyeball, producing inflammation, flattening of the cornea, retraction of the eyeball, with protrusion of a fold of the conjunctiva and a *flow of tears*, and ultimately ulceration and destruction of the organ. The experiments of Dupuy upon horses, wherein he *extirpated* the superior cervical ganglion, were followed by the same results with regard to the local effect in the eye, but also, with the more ap-

posite and corroborative consequences, that there was *an eruption over the whole cutaneous surface*, with emaciation and an œdematous state of the limbs. Dr. John Reid, has also experimented on the sympathetic nerve in the neck, and found the eye similarly affected with the above, the *conjunctiva becoming red and congested* in a few minutes, while in other experiments* the eye presented an *ecchymosed or bloodshot appearance*. Each one of these conditions of the eye must be borne in mind, in order to appreciate the comparison; inasmuch as, on account of the great difficulty of making such experiments on other portions of the sympathetic system, we can find none on record which will serve as reference; for it will readily appear that, from the remote position of these nerves, it is impossible to make their section without so materially deranging other important parts of the organism as to render the results valueless in deduction.

"Now, a reference to some of the pathological phenomena of typhoid fever, will discover a close analogy, if not identity to the above results; in the first place, the *conjunctival congestion*; its character, the attendant suffusion, together with the entire freedom from pain, even on exposure to the strongest light; while, at the same time none of the symptoms of true inflammation are present; all indicate the seat of the nervous derangement upon which it depends to be the ganglionic system† and not the cerebro-spinal, the analogous derangements of which are invariably of a sthenic character, and attended with acute pain in the region in which they occur. Again, an attentive consideration of the character of these congestions will show that they do not vary in any respect, except in degree, whether occurring in the mucous membrane of the eye, that of the stomach, pharynx, small intestine, large intestine, or bladder, in the typhoid type, or on the cutaneous surface in the typhus. In all the above localities, and under all circumstances, we find the capillary congestions wearing the same aspect, assuming invariably a *passive* character, often approaching the condition of true stasis, but never attended with the florid redness, the pain or the swelling of active inflammation. Lastly, in the cutaneous petechial eruptions or maculæ of the typhous type of continued fever, we can also detect the same character of *passive congestion* from deficiency of nervous energy carried to a still greater degree; in this type, the nervous power of the cutaneous capillaries is so far diminished, that it amounts to a state of actual paralysis, allowing such distension of the capillaries that their rupture and a subcutaneous effusion is the result.

"We have thus far endeavored to show that typhoidal fevers result from alterations in the condition of the ganglionic nervous system, by comparing the typhoid phenomena with the normal action of the sympathetic system; and we have found that the analogy is com-

* Arneman's Experiments on Nerves. Gottingen, 1787.

† Dr. A. Billing remarks, in relation to this subject: "Without, therefore, at present seeking for farther proofs, I deduce from blushing, and from the effects of electricity, fire, and cantharides, that the capillaries are dependent upon the nervous system for that tone or energy which preserves them from over-distension."—*The First Principles of Medicine*, p. 44.

plete, and that typhoid phenomena are but the result of aberrations in the normal action of these nerves. Their action may be either exaggerated or diminished; for instance, a portion of this system controls the action of the heart, and in health endows this organ with a frequency of action amounting to 60 beats per minute in the adult; and without disturbing causes, this number will continue unvaryingly in its regularity till the close of life. But we know that this regularity is liable to many interruptions and disturbances; some of them but momentary, as from the emotions; others disturb it for many hours by increasing its frequency, as in paroxysmal fever; and lastly, in typhoid fever, we find this increase of frequency kept up for many weeks, but still retaining the remarkable feature of continuousness, which distinguishes the normal action of the sympathetic system from that of the cerebro-spinal system, which is intermittent in all its phenomena, whether normal or abnormal. Were we now requested to explain the difference which marks the increased frequency of pulse in these three instances; to answer why is it evanescent in one case; of but a few hours' duration in the second; and yet continue many weeks in the case of typhoid fever?—we think, we should do it thus: The heart, being under the dominion of the ganglionic system, performs its normal action through its influence; but from the intimate connection between the sympathetic and cerebro-spinal systems, especially in this organ, it is very liable to be affected by emotional causes acting in the brain; these, of course, will be evanescent; or it may be affected by causes acting in the spinal marrow, which may be more durable, as would be the case in a paroxysm of intermittent fever;* but it will be observed that, in these cases, the organic system is only secondarily implicated, and so soon as the mental emotion subsides, or the spinal irritation is removed or has exhausted itself in a paroxysm, the excitor being withdrawn, the sympathetic becomes again normal, and the action of the heart consequently natural. But in continued fever, the case is quite different; the irritation is now located in the ganglionic centre itself, which supplies the heart, and consequently the increased frequency continues as long as this irritation remains, which is coeval with the duration of the disease. There is one feature of continued fever, of which, heretofore, we have seen no satisfactory explanation, that we think can be accounted for rationally according to the pathology here suggested; we refer to the paroxysms and exacerbations which frequently complicate the course of continued fever. We would attribute these paroxysms to the extension of the irritation from the ganglionic to the cerebro-spinal centres, and we conceive that it is only under such circumstances that we find these intercurrent paroxysms masking the course of the typhoid affection. By this means there is effected a true *blending of types* from a

* We have adopted the pathology of intermittent fever advocated by Maillot, viz., that it consists in cerebro-spinal intermittent irritations. Prof. J. F. Lobstein remarks: "The paroxysms of intermittent fever are tied down to a regular rhythm, in consequence of being radicated in the nervous system, upon which nature has impressed a law according to which they must perform their functions periodically."—*Sympathetic Nerve*, p. 121.

blending of proximate causes, and the two sets of phenomena exist in combination; a continued fever characterized by paroxysms of exacerbation. In the same manner, on the other hand, can we conceive of paroxysmal fever becoming continued under favorable circumstances, by the transmission of irritation from the cerebro-spinal to the ganglionic system.

"As the abnormal innervation in the sympathetic system can produce a continued accelerated action in the heart, in typhus and typhoid fever, so, likewise, can the diarrhœa of the typhoid type be shown to be a result probably of a similar condition. The normal action of the ganglionic system endows the intestinal canal and other viscera with the function of healthy secretion; but during the existence of the typhoid state this proper action is destroyed; in place of the organs being the seat of a normal and proper circulation, which is necessary for the due exercise of their function—secretion, the vessels become the seat of obstructions and congestions, the secretions become more abundant, but abnormal and vitiated; we have then *diarrhœa*. As these congestions become more marked, we find the paralyzed and over-distended vessels giving way, allowing submembranous effusions of blood, and occasionally considerable hemorrhage—all being the result of the altered condition of the innervation of these organs. Thus, what in its beginning was a purely dynamical affection, soon becomes organic; for without the proper supply of ganglionic nervous influence, we have seen, from the above-mentioned experiments, that the circulation ceases, the capillaries become turgescient, especially in highly vascular secretory organs (as the mucous surfaces, or the glandular plates of Peyer, for instance), effusion of lymph takes place, and, as above stated, finally, the capillaries are ruptured, and the tissues in certain places rapidly disintegrate by the process of ulceration—which is the actual condition of things in the intestinal disease of typhoid fever.

"From what has already been said in relation to the distinctive features of the two types of continued fever—typhoid and typhus, their interpretation, according to the pathology herein argued, will have been, doubtless ere this, naturally suggested. We have seen that *typhoid* fever is marked by an accelerated pulse, more or less nervous derangement, an altered condition of the blood, frequently a *mild* cutaneous eruption, diarrhœa, and meteorism. On *post-mortem* examination, we find lesions; viz. congestions and ulcerations of a peculiar character, that is, simulating those produced by experimental sections of the nerves in all those parts supplied by the *visceral* portion of the ganglionic system of nerves. On the other hand, we have seen that *typhus* fever is characterized by a somewhat more accelerated pulse, much more marked nervous derangement, the same altered condition of the blood, well-marked and *always serious* alterations in the capillary circulation of the *skin*, amounting often to actual ecchymosis, while the *post-mortem* examination shows almost entire *exemption* from lesion in the abdominal viscera. Thus, we find that while both diseases have all their general symptoms so exactly similar that

we are forced to acknowledge their identity, and see in them what is essentially but one disease, yet typhoid fever has its principal and most prominent manifestations in the abdominal viscera—internally; and typhus fever manifests itself in aberrations of the circulation, very analogous to those of typhoid, but occurring in the capillaries of the *cutaneous* surface.

“Now the ganglionic pathology is the only theory by which such marked incongruities in the two forms of what, to the observation and scrutiny of every one, must ever appear as one disease, can be perfectly and satisfactorily reconciled. We cannot deny that the two are but types of the same disease; yet how incongruous and strange it is that, in certain cases (*typhoid*), diarrhœa and intestinal lesion should appear the main—the most important features; while in the other cases (*typhus*), undeniably of the *same disease*, even more grave and threatening, there should be not a trace of diarrhœa, and on *post-mortem* examination no intestinal lesion whatever, but, instead, serious disease and congestion of the *skin*, with subcutaneous sanguineous effusions, similar to the submembranous sanguineous effusions of the typhoid type. Indeed, from the very smallest degree of attention must result the conclusion that, in the two cases, *the disease is one and the same*, but seated in different portions of the organism; and this conclusion will accord exactly with what we have considered the distinctive pathology of the two forms, viz. that in each type the disease is located in a different portion of the ganglionic system. There are certain parts of the system which are affected in both forms of the disease—as the ganglia supplying the heart; but after this, the two types have entirely distinct and separate sets of ganglia, the morbid action in which gives rise to their respective manifestations. In *typhoid fever*, the *internal* or *visceral* isolated ganglia, such as the semilunar, &c., are the seat of the morbid action; and these supplying mainly, we may say entirely, the abdominal viscera, and having but little connection with the other or external portions of the organism, these viscera become the seat of nearly all the morbid phenomena; while that little implication of the cutaneous surface and general nervous system which we often observe, is entirely due to the remote and very obscure connection which their isolated ganglia may have with the nerves supplying these parts.

“Now, in the *typhus* type, the same disease, or morbid agent (its exact nature we do not pretend to define), affects an entirely different set of nervous centres—a set of ganglia which, by their anatomical position, their internal and universal relations with the anterior and posterior roots of the spinal nerves, are plainly destined to preside over the capillary circulation of parts more superficial—the *cutaneous* surface. We have reference to the *vertebral* sympathetic ganglia; and, in attributing the location of *typhus* fever to these ganglia, we have a ready and satisfactory interpretation of all its distinctive characteristics. The skin becomes congested and ecchymosed (petechial) because its circulation is dependent upon and controlled by innervation derived from these vertebral ganglia; which ganglia being the

seat of abnormal action (perhaps paralysis), innervation is deficient, the cutaneous circulation is retarded; in certain places there is obstruction, with actual rupture and effusion, giving rise to petechiæ. The general (cerebro-spinal) system is more seriously involved in typhus than in typhoid fever, because the connection is more direct between the vertebral ganglia—which are the seat of typhus—and the cerebro spinal system. In a word, then, we would locate *typhoid fever* in the *visceral* portion of the ganglionic system, and *typhus* in the *vertebral* portion.

“We are fully aware that our views of the pathology of typhoidal fevers would be greatly corroborated, could there be discovered any appreciable *lesion* in the ganglionic nervous centres, in subjects who have died during their progress; but, like the pathological anatomy of all the nervous system, this would be an investigation attended with many difficulties; for histological changes in the nervous centres are of such a character that though they may be competent to subvert the intellect, entirely paralyze or destroy the functions of a large portion of the organism, and ultimately, upon the most positive rational evidence, *seem* to be the cause of death, yet on examination the alterations observable in those centres are of the most insignificant and irrelevant character, pertaining only to the involucre, while the centres themselves, which, from the previous symptoms, had been plainly the true seat of the disease, have been found apparently normal and intact. These changes, then, are probably molecular and inappreciable with our present means of investigation, and will require years, and far more perfect appliances, to incorporate them among the positive and demonstrable things of our science. Still, there are occasionally isolated facts, even in the *pathology* of the ganglionic nervous centres, which we may refer to in corroboration of our opinion that these centres are affected in typhoidal fevers, and that such affection gives rise to its characteristic symptoms, or to phenomena quite analogous in their nature. The case reported by Prof Lobstein is of this nature. It was that of a young girl who had suffered from paralysis of the lower extremities for some time, but for three months previous to her death labored under the most incurable *diarrhœa* with tormina, &c. On making a *post-mortem* examination, there was found a large abscess on the left side, extending from the sixth to the tenth dorsal vertebra. On opening this abscess, it was found that the *trunk* of the left *sympathetic nerve* was entirely *destroyed* from the sixth to the twelfth vertebra, and in the lumbar portion the *same nerve* was in a state of *inflammation*.*

There are also two cases reported as occurring in the practice of Dr. Aronsson, of the Strasburg Hospital: The first, that of a man forty-seven years old, affected with *diarrhœa*. He died of a tumour in the abdomen, and it was found that “the *semilunar ganglia* were affected with *distinct inflammation*.” The second case was a woman aged about thirty years, who, in her second pregnancy, was subjected to vomiting throughout the whole of her gestation. She was also

* Structure, Functions, and Diseases of the Sympathetic Nerve, p. 147.

affected with a *furfuraceous eruption* upon the breast and arms, with *swelling* of the *limbs*, and with *diarrhæa*. On a *post-mortem* examination, the villous coat of the stomach was found inflamed and thicker than usual, especially towards the pylorus, 'and the semi-lunar ganglia were found in a *state of genuine inflammation*.'

"In the body of a boy ten years of age,' says Lobstein, 'who had died from the retrocession of a *miliary eruption*, attended with symptoms of great anxiety, oppression of the chest, and distension of the epigastrium, I found a place in the left trunk of the *intercostal* (which is the old name for sympathetic) *nerve*, *highly inflamed* between the eighth and tenth ribs, *with a phlogosis of the ninth and tenth thoracic ganglia*, and their two anastomotic branches with the costal nerves.'

"The following observations are quite pertinent to the state of congestion in which the lungs are almost invariably found, to a more or less degree, in typhoid and typhus fever. 'On examining into the condition of the nerves in diseases of the lungs, I discovered another alteration which is peculiar to these organs; to wit, in that species of *peripneumony*, in which the lungs became red and *slightly indurated*,* and which, I think, should be called spleenification; the *nervous filaments* attending the ramifications of the bronchia were found equally red, a little more tumid, but much more tender than usual; so as to be broken by the *slightest degree of force*.'† And, lastly, the same author‡ quotes a case still more in point, from the writings of Professor Autenrieth, of Tübingen, wherein it is asserted, though he does not seem to connect the circumstance with the pathology of the disease at all, that he has seen the *abdominal nerves of the ganglionic system somewhat changed in subjects who have died of typhoid fever*.

"The above cases, though not conclusive, are at least strongly corroborative of our view of the pathology of typhoid fever; for while we must admit that the diarrhœa, the eruption, the pulmonary congestion, œdema, &c., might have been produced by other causes than disease of the ganglia found inflamed or divided, still, when these coincidental circumstances are viewed in connection with the known result of artificial section of accessible portions of the sympathetic nerve, as those about the neck and eye,§ and also in view of the entire dearth of experiments and facts bearing upon this portion of the ganglionic system, we must regard them as significant and valuable, even though they afford what we may term only a legitimate suspicion of the correctness of our pathological views.

"We have now completed our investigations in relation to this intricate, but, at the same time, most interesting topic of pathological inquiry; we have reviewed its history, and collected from every source within our reach as complete a delineation of its prominent and characteristic phenomena as has been necessary for their full development.

* Exactly what is described by Dr. Flint as the pseudo-pneumotitis of continued fever.

† Lobstein, p. 139.

‡ Op. cit. p. 137.

§ See experiments of Panfour du Petit, Dupuy, John Reid, and others, already referred to.

In so doing, we have been struck with the vast number of reliable and significant facts our science is in possession of, in regard to this disease. No disease in the catalogue is more invariable in its characteristic manifestations; no disease has been more diligently studied, or has enlisted in its investigation such faithful observers. Our knowledge in regard to its observed *phenomena* and *facts* is clear, well defined, almost certain; to complete the science in regard to it, it has but remained that these cognate, well-ascertained facts and phenomena be rationally and correctly *interpreted*, that its true pathology might be *deduced*. To this arduous, though not unpleasing task, not without many misgivings, we have earnestly and diligently devoted ourselves, more with the hope that our labors would prove suggestive to others of the true mode of arriving at the real pathology, than that we should be able to supply the want or remedy the deficiency.

"Starting with what we considered the rational assumption that the pathology of typhoidal fevers is in the ganglionic system of nerves, we have compared their characteristic traits and phenomena, with first, the *normal* action of this portion of the nervous system, then with the known and well-established results of *experimental irritation and action* of various portions of these nerves, and we have found that the analogy is sufficiently close to admit the legitimate inference that the symptoms and pathological lesions of typhoid and typhus fever are produced by abnormal action in certain portions of this system of nerves. First, because no typhoid or typhus phenomenon ever occurs, except in regions supplied by this system; secondly, because the peculiar phenomena of these diseases occur in a more marked degree, in those parts most abundantly supplied from this source; and thirdly, because the nature of these symptoms is always found more purely and characteristically typhoid in those portions of the organism supplied exclusively by this kind of innervation. And farther, on the other hand, we are forced to admit the truth of these impressions, because we have hitherto had no theory or legitimate and consonant combination of theories, to our own mind, as competent to the full and rational explanation of *all* the phenomena of the disease as the one now offered.

"PRACTICAL DEDUCTIONS.—Pathology is only valuable when it has a tendency to the prevention, amelioration, or cure of disease, and the results of our most successful labours in this department are but nugatory unless in them can be found a clue to a more rational and perfect management of the affections to which they refer.

"If the views embodied in the foregoing treatise be correct, the following practical inferences must present themselves as legitimate, if not inevitable: First, that in the management of this class of fevers the strictest attention should be paid to the improvement of the tone of the nervous system; all depressing measures, or such as are calculated to exhaust the nervous energies, as depletion by purgation or otherwise, should be scrupulously avoided; and secondly, that in their place means of an opposite character should be invoked. Indeed,

that treatment now most in favour, though but empirically* applied, will be found on the admission of the above pathology the most rational, and to offer the best hope of success. We have reference to that treatment which is addressed almost exclusively to the nervous system, and has for its object the sustentation and elevation of its energies. Some of the means employed have been attended in their application with the most marked beneficial results. Among these, we would mention the plan of Dr. Percival, wherein the disease was treated by frequent profuse cold affusions, especially in the case of children; which treatment we should rationally expect, from the known effect of cold water thus applied, to improve the condition of the depressed nervous centres. The administration of stimulants, as camphor, quinia, brandy, opium, turpentine, and the ethers, have all been favourably known to the profession as remarkably efficient in these fevers.

"In relation to the beneficial results recently obtained from large doses of quinia, by Dr. Dundas and others, we can readily appreciate what vast benefit may accrue from them, especially in cases where the cerebro-spinal system of nerves are extensively implicated, and where the disease is marked by regular obstinate paroxysms, for quinia, though it possesses, in our opinion, but little influence over the ganglionic system itself, still, would relieve these periodic exacerbations by its effects upon this system, through the cerebro-spinal nerves (which in these cases we regard as the instigator of the paroxysm), upon which most of its power is expended. That the doses required should be large, we can easily understand, as any effect produced upon the ganglionic system through the cerebro-spinal is only accomplished by powerful and long-continued impressions, on account of the comparative isolation of the two systems from each other.

"To those who are in the proper field for such experiments, and possessed of the proper facilities, we would recommend the trial, in typhoid and typhus fevers, of such agents as are known to possess a direct power to stimulate the nervous system, even when in a state of partial paralysis—such an agent is *strychnia*. This we would suggest as applicable in minute but efficient doses, with the view of waking up and restoring the diminished energy of innervation, upon which the impaired function depends, in the same manner that we would advise it in other similar cases where the cerebro-spinal system was implicated.

"The above is all we offer in regard to treatment; there are many measures of a like nature, which, were we writing a complete treatise on the *management* of these diseases, would require a full and extended consideration, as also the measures and applications which the emergency of each case will naturally suggest and demand."

*Of course, this term is not applied in its offensive sense.

Transactions of the Fourth Annual Meeting of the Medical Society of the State of Georgia, held in the city of Savannah, April, 1853.

Not having been able to complete, in our last number, the notice of the Transactions of the Medical Society of the State of Georgia, we now resume it.

At page 65 we find a communication from Dr. Thos. W. Bell, of Houston county, upon the use of the Sulphate of Cinchonia as a substitute for Quinine. The author states that he has used it in eleven cases of intermittent fever with success, but has not tried it in remittents.

"Its effects resemble very much those of quinine. When given in large doses, it produces cerebral disorder, such as fullness of the head with ringing in the ears. I do not know that in full doses, it possesses the sedative properties of quinine.

"I first tried it, hoping to find a remedy more efficacious in the treatment of the quotidian form of intermittents, which is so prone to recur time and again, but I find that relapses are about as frequent as after the use of quinine, or other remedies that I have tried.

"I gave about the same quantity in the intervals of the paroxysms, that I usually give of quinine ; from 18 to 24 grs.

"Dr. Pepper gave 16 grs., and I have no evidence to prove that this is not a sufficient quantity, even in this latitude.

"From this limited experience, I am induced to believe its anti-periodic virtues are not much, if at all inferior to quinine.

"I hope other members of the profession, who live where autumnal periodics are as numerous as with us, will test its virtue. If it should prove as successful generally, as with Dr. Pepper, and with myself, we will have a remedy, for the cure of periodics, at a little over one-third the present cost of the sulph. of quinine."

From the biographical sketch of the late Dr. Wm. R. Waring, of Savannah, by Dr. C. W. West, we cull the following characteristics of the subject of the memoir :

"Like most of our professional men, Dr. Waring was too much engaged with the labors of an active exercise of his profession to write much, but the few articles from his pen would alone establish the traits of his mind. One of them, an excellent description of disease, clear, minute, and searching ; the others entirely argumentative. His report to the city council on the epidemic, yellow fever, of 1820, contains much valuable information, though unfortunately, his mind was too deeply imbued with the pathological views of the French school to arrive at correct conclusions. Broussais had just broken the bonds of the humoral pathologists, and finding the origin of many continued and remittent fevers to consist in a diseased state of the gastro-intestinal mucous membrane, led away into an equally grave error, many of the medical profession of that day. Hence Dr.

Waring's error in fixing the pathology of yellow fever upon the diseased mucous coat of the stomach, and attributing all the fevers of our climate to the same cause. But when we remember the vagueness of the pathology of fever previously held, and the nearer approach to truth, confirmed by a more successful mode of treatment, which resulted from the change, we look with leniency upon an ardent reception of a theory, false in fact, and yet productive of so much good. Under the more enlightened pathology of the present day, no man would be excusable for holding the doctrines of Broussais, though at that time it was rather evidence of a mind keeping pace with the developments of science. Such strong impressions are not easily dismissed, and Dr. Waring continued to practice upon the theory of his illustrious teacher even after his dogmas had been exploded.

"Dr. Waring's mind was strictly philosophical; trained to reason closely and logically, he dealt principally with facts and their legitimate deductions. Hence he was deliberate, and even slow, in his diagnosis, but generally clear and positive, firm and intelligent in treatment, and very generally successful. If he formed theories, it was only after study and reflection, and they were the results of judgment, not of fancy. A mind thus acting must necessarily be acquisitive—he was a constant and unremitting student, not deterred even by the labor of an extensive practice. The *midnight lamp* was not a figure of speech to him, but a reality, which brought him constantly in close converse with the great minds of the age. Nor until disease had enfeebled him, did he relax from assiduous study.

"With little imagination or fancy, he was rather taciturn, and seemed indisposed to communicate, but when in the confidence of social life, he could be drawn out to unburden the accumulated stores of his intellect, they were found to be rich treasures, which instructed and delighted all about him.

"Tubercular phthisis, with its unerring certainty of march, gradually wasted him away, and he died in this city in the year 1842."

Dr. C. B. Nottingham also furnishes us an excellent biographical sketch of the late Dr. Ambrose Baber, of Macon.

"As a practitioner of medicine, Dr. Baber was prompt, decisive and energetic. His practice sharing largely of the anticipating method of cure; the temporising expedients of the expectant system of the distinguished French pathologist which led captive in those days many enlightened intellects in medicine, found little favor in his views. Clear and perspicuous in diagnosis, he no sooner arrived at a satisfactory conclusion as to the pathology of a case than he was prepared to invoke, from his ample store of therapeutic knowledge, such agents as were best calculated to meet the indications of treatment. He was however a prudent and even cautious man. Daring heroism or reckless boldness could not claim him as a votary. Although highly gifted in powers of observation and deduction, and consequently a ready diagnosticator—his tact, sagacity and quick

perception enabling him to learn more of a case ordinarily by a hurried glance, slight manipulation, and a few questions apparently carelessly propounded, than many men could by protracted investigation; yet he met with *many* cases in a large practice, which, in his judgment, partook of the character of abstruse problems—requiring for their solution, the most systematic investigation and careful reflection before therapeutic measures were instituted. In cases of such obscurity he ever made it a matter of scrupulous regard to truth, the interests of the sufferer and his own reputation, to pursue a course of calm, deliberate and cautious enquiry—bringing to the task scrutinising examination, patient analysis, and a general concentration of effort, that was sure in the end to result in views of clear and definite elucidation—alike creditable to himself and conducive to the welfare of his patient. Not unfrequently was it the case that he would visit a patient, the pathology of whose disease was not clearly manifest a second, and sometimes even a third time, before declaring his diagnosis or suggesting a prescription; permitting neither the anxiety of the afflicted, the personal labor or the apparent want of skill, which such a course might suggest to observers, to swerve him from his conscientious sense of duty and probity—an example worthy of imitation by those who consider themselves able by intuition to solve the hidden mysteries of the dark arcana of disease and arrogate to themselves the capacity of instituting the best means of cure without ever evincing any show of hesitation.

“In his intercourse with his patients, Dr. Baber did not indulge affability. On the contrary, he was usually blunt, stern and sometimes even austere—rarely unveiling to any the secret workings of the mind by which he wrought his diagnosis or determined upon the plan of treatment, and never tolerating the slightest suggestion or contradiction in any way affecting his opinions or measures. Being perfectly satisfied with his elucidation of the case, and having a definite object in view in making his therapeutic appliances, he moved with a firm and steady step, uninfluenced alike by the whims and caprices of the patient or the fears and apprehensions of friends. Dissatisfaction expressed or plainly implicated was but the signal for his withdrawal from the case—thereby giving the family an opportunity of seeking aid elsewhere. Let it not be inferred, however, that he was either unacquainted with the politeness and courtesies of the gentleman, or a stranger to the benignities of the profession. Dignified, urbane and benevolent, he yielded precedence to no one in the *true* sympathies of the man or the charities and kindly offices of the profession; but pursuing his labors with a due sense of their obligations, their responsibilities and their true dignity, he considered the non-professional, even among the more intelligent, incompetent to appreciate the pathological and therapeutic ratiocination of his mind, and that his own self respect and cherished reputation was always more or less involved in a faithful adherence to his well considered and well matured directions.

“Dr. Baber’s bearing among his brethren of the profession, was

equally as dignified and in some respects as reserved as among his patients—having but little intercourse with any, except those whose intellect and acquirements, in his judgment, reflected honor upon the profession, and consequently commanded his respect. With such, at fitting times, he would unbend himself to free and even familiar intercourse. On such occasions his manners were bland, his conversation graceful and his whole bearing that of the educated physician and cultivated gentleman. With drivellers and pretenders—those who hang as an incubus upon the profession—courting popular favor by dissimulation and trickery, or by calumniating the fair character of their superiors—deriving honor by their connection with the profession without making any return—those drones and ignoramuses who look to the profession as a foster-mother—giving them some show of respectability and position, yet who do nothing to add to or support its dignity, its honor, its usefulness, but on the contrary whose daily life is one continual slander upon its purifying and elevating influences—with such he never associated, and when opportunity presented, rarely failed to impress them with a full consciousness of the ineffable contempt with which he viewed their unmanly and dishonorable conduct.

“For the junior members of *promise*, he cherished feelings of the most kindly and considerate regard. Cheerfully aiding them in the many ways in which the senior practitioner has it in his power to advance their views and forward their preferment, he was esteemed by the rising young men of the profession as the patron of merit.

“In consultation, he was ever a man of mark—expressing himself courteously, yet firmly, deliberately and fully—listening respectfully to the opinions of others, yet insisting boldly and zealously upon the correctness of his own, he exercised a power and controlling influence in the consulting room that rarely failed to make itself felt in the management of the case. Harmony was never so much the *end* sought, as the *means* of securing the welfare of the patient and the triumph of truth.

“Important elements in his character, those having much to do with his success, were energy, industry, decision, and firm determination of purpose. Viewed in relation to his profession, they made him diligent, faithful and untiring in whatever he undertook. Devoting himself with a spirit of self-sacrifice upon the altar of duty, he was ever ready to respond to the call of suffering, and when in the chamber of affliction and peril, was scrupulously studious to leave nothing undone that might conduce to the interests or *properly* to the comfort of the sufferers. Neither, considerations of personal comfort or bodily pain, the fatigue of sleepless nights or incessant toil, were permitted to interfere with the full discharge of his sacred obligations, to those who sought relief at his hands.

“With an elevated ambition of excellence, a refined pride of character, an honorable, independent and chivalrous deportment, and an integrity of unspotted purity, was associated in his later years, the amenities and graces of the christian. Generous to a fault among

his friends, he was benevolent to the poor and liberal in his offerings to the various enterprises designed for the moral and social improvement of his race. Pursuing his profession under circumstances of unrivaled popularity that enabled him to command a full practice within a circle bounded by the selfish and sordid horizon of pecuniary emolument, he looked beyond the reward of the hour, and freely ministered its high charities wherever a claim presented for their exercises—responding, alike, promptly to the call of the widow, the orphan and the *virtuous destitute* of the sterner sex, as to that of those upon whom fortune smiled in the gifts of ease and affluence.

“Such was Dr. Baber. With a character distinguished by such ennobling traits, and a life illustrated by such deeds of usefulness, grace and charity, he could not fail to command the respect, confidence, admiration and patronage of the public who knew him.”

The last paper in the work before us is the Address delivered by Dr. Juriah Harriss, of Augusta. It is a chaste and erudite production highly creditable to the author. We regret that our limits will allow us to reproduce only the opening and closing remarks of the speaker.

“‘History is philosophy teaching by example,’ and the great source of human knowledge. Embodying the past and the present, she will enable us to avail ourselves of the one as well as the other.

“Analogy is the first and most simple process of inductive reasoning, and if properly carried out, leads to positive and invariable results. If the data are ascertained, and the reasoning correct, the conclusion must inevitably be true. From history, we are enabled to collect the data and approve the truths, or demonstrate the errors in the reasonings or conclusions of our predecessors. We must of necessity profit by the experience of others, since life is too short for one individual to pass from the origin of the sciences to their present perfection without its aid. Difficult indeed would it be for us to acquire new facts, or make new discoveries, if we were unacquainted with the truths that have been determined by those who have preceded us. It is the records of these facts which benefit mankind, for otherwise how comparatively vain and profitless they would prove.

“But aside from facts; it is from a multiplication of theories, and theories oftentimes adverse in character, the offspring of individual minds, that we must generalize and reach primitive causes of natural phenomena.

“The history of medicine is its veritable flame of truth, and the most fruitful source of instruction, and he who is unmindful of its promptings, however intellectual, or however persevering in his labors, will never add very much to science. His labors may be incessant, but the field is too extensive to be traversed by him; he may be gifted in mind, but the subject is too vast and abstruse to be grasped by his unaided intellect. But this field must be cultivated, even to its utmost limit, which can alone be accomplished by toil—toil the most un-

remitting—and when the energies are exhausted, the benevolent searcher after truth will record the result of his researches, as landmarks for those who come after him, and who will be thus enabled to profit by his experience. It is only by such means that science secures permanent progress, and mankind real benefits.

“But history has other advantages than that of giving us the experience of the past. It prevents us from coming to unjust or unfair conclusions, and its records prove that an impartial historian may find important truths, wrapped in the mysteries of conflicting opinions. Its study tends to divest us of our self-importance and egotistical pretensions. It inspires us with modesty, and demonstrates that a blind confidence, or pertinacious adherence to our own opinions indicates weakness. It disciplines the mind, enlarges the views, and refines the taste. ‘The cold study of the scholastic, and the false philosophy of Talmud, can offer interest to no one save the true historian, who, in the midst of the greatest confusion, can unravel the mysteries, and draw forth a few sparks of light.’”

The speaker then proceeds in a very happy manner to establish a comparison between the state of medicine in the 18th and 19th centuries, and concludes thus :

“It is the glory and triumph of medicine, that she has been placed upon the immutable foundation of truth. For centuries she has been struggling for that honor, but until the advent of the era in which we live, she has been ranked as a mere art. Her disciples have nature and truth for their guide—their object, the amelioration of the sufferings of mankind. Up to this century she has had to contend with ignorance, overcome prejudice, resist contumely and ridicule, and fight against quackery and pretending artisans.

“It is at length and happily, the proud province of the scientific physician, to stand upon the high eminence of science, surrounded by an atmosphere of truth, and crowned with imperishable laurels, wreathed by the gratitude of the world. The remark of the illustrious Roman orator, ‘homines ad deos nullâ re proprius accidunt. quam saltem hominibus dando,’ is appropriate only to physicians of this century. He does not stalk forth as of yore, the unblushing charlatan, the unscrupulous and heartless quack, the boasting pretender, but walks forth conscious of his own skill and rectitude—a dispenser of health.”

Singular Atmospheric Phenomenon.—The subject of quarantine regulations is being agitated in Louisiana, and a circular has been addressed to members of the Medical Profession in that state for the purpose of eliciting their views with regard to the origin and propagation of Yellow Fever. We have just read the reply of Dr. James S. McFarlane, who is a strong believer in the local origin of the disease, and in its non-contagiousness, and who is consequently decidedly opposed to

quarantine regulations. We have never believed that yellow fever is contagious, or, in other words that it can be communicated from man to man; but we can see no good reason why an atmospheric disease or poison may not be carried about in a ship, and discharged upon a wharf with the cargo, and thus infect the atmosphere to such a degree that those who breathe it may take the disease. Nor do we think it unreasonable to admit that the poison may be propagated or increased in quantity, if thus deposited in a susceptible atmosphere, whereas it would prove inert if turned out in an atmosphere less congenial to its *vitality*, if we may so express ourselves. The history of the late epidemic would seem to establish almost beyond a doubt that the yellow fever was carried along the coast of the Mississippi by the steamers, however successfully it may be demonstrated that it was not brought to New Orleans from South America or the West Indies.

The following singular atmospheric phenomenon is related by Dr. McFarlane in his able article :

"Among many local phenomena which occurred, and which could have no relation to contagion or importation, and which may to a certain extent, account for the presence of an epidemic, were the following :

"A piece of fresh meat attached to a kite, and elevated a few hundred feet, came down in twenty or thirty minutes, completely covered with living, moving vermiform animalculæ, and this circumstance occurred throughout the whole epidemic, whenever the experiment was made, which was almost daily.

"The upper stratum of clouds never changed their position from the commencement to the close of the epidemic: they appeared "nailed to the sky," and this extraordinary phenomenon was observed in the interior as well as in the city; but what is most remarkable in the premises is the fact that on the very day that they were observed to move, for the first time in several months, the epidemic began to decline, and continued to do so until it ceased to exist, without the aid of cold, frosts or tempests.

"If these phenomena be corroborated by more extended experiments, in future epidemics, they may serve in part to account for the existence of a yellow fever epidemic, without any reference to contagion or importation.

"They demonstrate a horribly polluted condition of our local atmosphere, and show that *that* atmosphere was permanently established around us throughout the whole epidemic."

New process for coating Pills.—M. Calloud, (de Chambéry) in *Journal de Pharmacie*, xxiii. 301, treats of the subject of enveloping medicinal substances in a covering to prevent unpleasant taste. After having tried gum, starch and sugar without satisfaction, owing to the

hygroscopic tendency of the sugar and gum in moist air or with a moist mass, and their tendency to crack when very dry, he had recourse to the dried mucilage of flax-seed prepared with sugar, with success.

The following is his method :

Take of Flaxseed,	one part.
White sugar,	three parts.
Spring water,	a sufficient quantity.

A thick mucilage is obtained by carefully boiling the seeds, the sugar is added, and the whole of the moisture evaporated by careful desiccation.

This mixture is but very slightly hygroscopic, may be reduced to fine powder, and employed for covering pills. This operation is effected extemporaneously with great facility. The pills slightly moistened, are rolled in the mucilaginous powder, by which they are coated with a layer of the compound.

M. Calloud has used this chiefly for carbonate of iron pills, but it may be applied to other kinds.

Garot's process of coating pills with gelatine is most applicable to disagreeably odorous substances, as assafœtida, castor, valerian, etc., which are completely masked by it. When the gelatine is previously colored with carmine the pills bore the appearance of hawthorn berries.

M. Calloud suggests another process applicable in certain cases, which is the use of the butter of cacao as a covering for pills, where, owing to gastric irritation, the unmasked pills will cause disagreeable symptoms. The process is very simple: The prepared pills are thrown into melted butter of cacao, then removed with a perforated skimmer, and finally rolled in finely powdered sugar, or what is better, sugar of milk.—[*American Journal of Pharmacy*.

New Apparatus for extracting Drugs.—M. Schwaerzler, (*Gazette d'Augsbourg*, Avril 23, 1853,) has stated that if a flask is three fourths filled with water, and then closed with an air-tight cork through which passes a tube reaching to the bottom of the flask, and the latter is plunged into boiling water, it is well known that the dilatation of the enclosed air will force the liquid out through the tube. If a funnel-shaped vessel is attached to the top of the tube securely by a soft cork, the fluid will be driven up into it, and a portion of air will escape through the tube. If now the flask is lifted out of the water bath, the air in it contracts, and the water in the upper vessel returns to the flask. Taking advantage of this idea, an anonymous correspondent of the *Journal de Pharmacie*, (tome xxiv. p. 134, 3e serie,) has suggested a lixivating apparatus which consists of a flask, a tubulated bell-glass inverted, and a suitable tube connecting them in the manner described. A diaphragm of perforated tin is placed within the bell-glass, and upon this the substance to be extracted is loosely put. The flask is now placed in a vessel of boiling water; the water in the flask soon commences to rise in the bell-glass until it has covered the ingredients. After contact a sufficient time, by lifting

up the apparatus from the water bath, the fluid retreats to the flask, and carries with it a part of the soluble matter of the substance. This is repeated several times until the substance is sufficiently exhausted.

We have tried this experiment with a Florence flask and an inverted bottle with the bottom removed, and find it operates very well. The writer suggests that it is equally applicable to extraction with alcohol and ether, avoiding the point of ebullition, providing the upper vessel with a cover, and, in the case of ether a condensing apparatus, to avoid loss. In our small experiment, the temperature of the liquid in the upper vessel, when the air commenced to escape, was about 180° F.—[*Ibid.*

Cause and Treatment of Prolapsus of the Rectum. By M. DUCHAUSSAY.—In a short but interesting memoir, M. Duchaussay reviews the circumstances attending this troublesome complaint, and fixes attention in particular upon the loss of power in the sphincter ani muscle as the chief cause of the descent of the bowel. Moreover, he endeavours to show that Dupuytren's operation, by excising the radiating folds of skin around the anus, and the operation by four touches with the actual cautery, practised by Guersant, act not by causing any subsequent retraction of the cellular tissue, skin, and mucous membrane, but rather by stimulating the sphincter muscle, so that it regains its contractility, and therefore its retentive character. How else, asks M. Duchaussay, do we explain the fact, that the prolapsus is often cured, or does not return after two days, or even after one day, or not at all, after the operation? He points out the fact, that in cases of this disease in infants, three fingers may sometimes be introduced without causing contraction of the sphincter, before the operation by cautery, whilst afterwards, if one be passed, a powerful contraction of the sphincter immediately ensues. As proof that this recovery of contractile power by the sphincter is the cause of cure, a case is mentioned in which M. Guersant had used the cautery too superficially, the sphincter failed to contract, and the disease returned. A second cauterization was followed, on the contrary, by return of the muscular contractility, and the cure was complete.

According to the author, the cautery acts as a stimulant to the paralyzed muscle, just as it will to the deltoid in a like condition. After pointing out the inconveniences and apparent severity of M. Guersant's method, M. Duchaussay suggests that a slighter cautery, or some other stimulant to muscular contractility, might act as well, and he suggests strychnine. This, with M. Guersant's permission, has been tried in the Hôpital des Enfants, in the case of a girl aged eleven years. The prolapsus here arose from obstinate constipation; it had lasted for four years; the bowel protruded at each evacuation about ten centimeters (=4 inches). During the first month of her admission she was treated by laxatives only, with no other result than that of diminishing the length of the protruded portion of bowel to about four centimeters ($1\frac{1}{2}$ inches). Strychnia was then employed endermically near the region of the sphincter; the next day there was

no evacuation; on the following day the bowels acted once, only a slight bulging of the rectum taking place; on the third day the protrusion was still less after an ordinary evacuation; and during the next thirteen days it did not occur again.

Blisters were made in the cleft between the nates, and on the right thigh close to that cleft; one-sixth of a grain of strychnia was applied the first day, one-third on the second, and one-third on the fourth day. On the fifth day, about half a grain of sulphate of strychnia was used, and this was repeated for the last time on the sixth day. In the case of a boy, it is recommended to be applied between the scrotum and anus, immediately over the anterior interlacement of the sphincter ani fibres. The remedy certainly deserves further trial.—[*Archives Gén. de Méd. Brit. and For. Medico-Chir. Rev.*

Infantile Leucorrhœa.—In several numbers of the 'Medical Times and Gazette,' for Sept. 10th to Oct. 29th, will be found the *History of a recent Epidemic of Infantile Leucorrhœa, with an account of Five Cases of alleged Felonious Assaults.* By W. R. WILDE, F. R. C. S., &c.—"Considerable excitement." Mr. Wilde states, "has prevailed among all classes in Dublin during the last month, owing to the circumstance of no less than three cases of felonious assaults upon children under ten years of age having been brought forward by the Crown at the late Commission before the Chief Justice."

A correspondence has been published in the 'Freeman's Journal,' between Dr. Ireland, Physician to the Police, upon whose information the cases were sent for trial, and Mr. Wilde, who had one of the accused persons defended. Most of the leading members of the profession in Dublin gratuitously tendered their evidence in court, "in what they considered the cause of truth, science, and humanity." The occurrence of this form of *vaginitis*, in an epidemic form, as shown by Mr. Wilde, is perfectly well known to most practical physicians and surgeons.

Mr. Wilde notices the delusion, which is extensively prevalent in Ireland, to the effect that a man can get rid of an obstinate gonorrhœa by having connexion with a virgin; and as the easiest and surest mode of effecting that, a child of tender years is selected; hence the felonious assaults occasionally attempted, and for which men have been most justly convicted, and most righteously punished. But in all such cases it has been proved, that the men, after the commission of the crime, still laboured under gonorrhœa or venereal, although the popular opinion among the lower orders is, that the disease is not only completely, but instantaneously, transmitted from the male to the female. A similar superstition, it appears, is found to exist among the Arabs, as stated by Mr. Duchesne, in his recent work on 'Prostitution in Algeria.' It is the knowledge of this wide-spread superstition, which leads the mother at once, on the appearance of vaginal discharge, to jump to the conclusion that impure connexion has taken place, and possibly she may be confirmed in this idea by some medical men not conversant with the true nature of the affection.

Mr. Wilde dwells upon the suggestions, insinuations, and threatenings, which are usually had recourse to in these cases, in order to extort a confession of connexion, and very justly remarks that it is not likely that a child, who has neither passion nor love to influence her, will conceal the fact from her parents or near relatives, when hard pressed. In Mr. Wilde's contribution it is stated that one mother, on her own statement before the jury, actually threatened to cut her child's tongue out if she did not confess to the connexion. Besides the three cases already referred to as having become the subjects of trial at the late Dublin Commission, Mr. Wilde cites six other instances of epidemic leucorrhœa that have been brought under the notice of the profession, either at public institutions, or through the medium of the medical journals. For the details of these cases, and of the trials, we must refer our readers to the '*Medial Times and Gazette*.'—[*Ibid*.]

Monomania—Book-stealing.—An Englishman in Paris having been convicted of stealing books from a stall, and condemned to two years' imprisonment pleaded monomania, or an irresistible impulse, as ground of mitigation of sentence. From the previous history, however, of the culprit, it was established that he must be held responsible for his acts; the plea was therefore negatived.—[*Annales Medico-Psychologique*, and *Ibid*.]

A Case Book, to be used at the Bed-side. By G. F. COOPER, M. D., of Americus, Ga.

We have been favored with a copy of Dr. Cooper's case-book, and take pleasure in recommending it to the profession as admirably adapted to the purpose for which it is intended. With such a *help* practitioners can without difficulty keep an excellent epitome of their cases for subsequent reference. We hope that a supply of the work will be forwarded to our booksellers.

Husband's Isinglass Adhesive Plaster.—We acknowledge the reception of a specimen of the above article, which we have tried and find very excellent. We therefore cheerfully recommend it to the profession.

The State Medical Society.—The fifth annual meeting of the Medical Society of the State of Georgia, will be held in the city of Macon, on the Second Wednesday (12th) in April next.

D. C. O'KEEFE, *Rec. Secretary*.

Greensboro', Ga., March 1st, 1854.

Errata.—In January number, page 11, third line from top, for "complete," read *complex*. Page 13, tenth line from bottom, for "sustained," read *retained*. Page 17, twelfth line from top, for "individual," read *undivided*.

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ORIGINAL AND ECLECTIC.

ARTICLE XI.

The Remittent Peculiarity of Typhoid Fever in Georgia.

Read before the Medical Society of the State of Georgia, by
H. R. CASEY, M. D., of Columbia county, Ga.

A communication from the President of the Medical Society of the State of Georgia has been handed me, to which was appended the above caption, stating that I had been appointed to write an essay upon that subject, to be read before the Society at its next annual meeting. I am informed that this appointment was made from the fact that I was the first to present to the notice of the profession cases of Typhoid Fever, of a *purely intermittent character*. (Vide *Southern Med. and Surg. Jour.*, Dec. 1851.)

From the day that Typhoid fever was first distinctly described, to the time to which allusion is made above, it has been looked upon as a fever of a continued type; and no fever could be called either *typhus* or *typhoid* which was not of a *continued character*.

Louis, who is justly regarded as the first great exponent of the physiology and pathology of Typhoid fever, speaks of it only as a *continued* fever. Petit, Serres, Andral, Chomel, and the other French authorities, all agree as to the type of the fever; and as this is, strictly speaking, *the fever* of France, and

particularly of Paris, its portraiture, as given by those men, should be considered a true and faithful likeness.

And in this country, so far as my reading and my knowledge extends, all the writers concur with the French authorities as to the type of the fever. Gerhard, Jackson, Bartlett, Bell, Austin Flint and G. B. Wood, all agree on this point. Dr. Wood says, "that in the formative stage of the fever, in the first seven or nine days of the disease, before it is yet fully developed, Typhoid fever may, and does, sometimes assume a *remittent type*."

Now I am not to be understood as attacking the position assumed by writers on Typhoid fever—viz. that it is a fever of a continued type—for my own observation attests the truth of it. I have seen it prevailing as a continued fever; at another time as a remittent; and again as an intermittent.

And this is the sole object of my essay: I wish to divert the minds of the profession from the long established notion that Typhoid fever is *necessarily, essentially*, and under *all circumstances*, a continued fever.

I contend, that true and genuine Typhoid fever prevails in Georgia, exhibiting all the other manifestations of the disease, (as laid down in the standard works,) except in the *type of the fever proper*. We have as true genuine Typhoid fever in Georgia, of an intermittent character, as is exhibited to physicians of Paris in their "*continued fever*."

The road has been blazed out for diagnosis in Typhoid fever; but who can say he has always, and under all circumstances, found all these blazes apparent? Does he not oftentimes find some of them obscured, or even entirely wanting? Oftentimes we have cases of genuine Typhoid fever; but where are the *rose spots*? or the *sudamina*? the *tympanites*? the *diarrhea*? or the *follicular disease*? One patient has a full, strong pulse—another a small corded one; one set of symptoms apparent in one case, and absent in another.

The singular forms of Typhoid fever which have prevailed of late years in different sections of the United States, exhibit to the eye of the medical philosopher the very wide difference of expression it may assume—yea, and I might add, the very singular *contrariety of treatment* will also furnish theme for contemplation.

Now the ulcerations of Peyer's gland, which are considered *characteristic* of the disease, and which are held to be the *true test* of Typhoid fever—even these have been found not to exist in patients who have died of this fever. It is said that Louis once treated a case of what he considered genuine Typhoid fever, judging from all the *life symptoms*: the patient died; a post-mortem was instituted; the ulcerations did not exist. The French philosopher changed his opinion, and declared it could not have been a case of Typhoid fever. The *non-existence* of *one symptom*, broke up the entire chain of evidence, upon which he had predicated his diagnosis, and instituted his treatment.

M. Andral has clearly shown, in his *Clinique Médicale*, that patients have perished under a fever marked with all the symptoms of typhoid; and there were no exanthemata—certainly no ulcerations—nor any apparent alteration in any part of the digestive tube, which would explain the cause of death. On the other hand, there are other diseases, such as cholera, scarlatina and phthisis, in which the intestinal mucous follicles are altered.

Nor do I think that *these ulcerations* should be held as *diagnostic* of the disease; for we cannot be satisfied of their existence until after death. And here another difficulty may present itself; an autopsy may be denied us.

I contend that we cannot rely on any one isolated feature to establish or deny the existence of Typhoid fever in a given case; but rather upon its entire physiognomy—its *tout ensemble* of symptoms.

To say that such a case is not typhoid, because the fever remits or intermits, is not good philosophy.

It has been shown in evidence that all the other accredited symptoms of Typhoid fever are subject to modification, and even to change;—then why not the *type* of the fever?

May not those endemic influences which give origin and peculiarity at certain seasons of the year to our pleurisies and pneumonias, and stamp upon them the impress of *intermittency*—may they not have some agency in changing the type of Typhoid fever? I merely throw out this hint for what it is worth; it may serve as a nut for the "*quinine curer*" to crack.

I shall not stop to account for the why and the wherefore?—

I leave that for future investigation. Sufficient for the purposes of this essay, is the promulgation of the fact that Typhoid fever has an existence in Georgia as an *intermittent fever*.

A case in point presents itself to my recollection. Some few months since my services were demanded. On arriving at the house, I found the patient, a negress some 10 or 12 years of age, ill of fever. After making the necessary examination, I obtained from the owner the following history of the case:—The girl had been sick for a week, with a fever which would rise every day about noon, and continue on through the night; that she would be free of fever most of the morning; was extremely weak; had no appetite; had nothing to say, and complained mostly of pain in the head. She had given her pills and oil, and, when clear of fever, she had given her freely of quinine. From this history, together with the symptoms then apparent, I stated to the owner that the girl had *Typhoid fever*. If so, this, she said, was the second case in the family—a boy was just getting well, who had been down in bed four weeks with a fever, which the Doctor called an "*intermittent fever*;" but nothing he gave him had any effect on the fever—it kept on till it seemed to wear out itself after a long time. And such, I stated to her, would in all probability be the case with the girl. She would get well after awhile. I told her to give no more pills, nor oil, nor quinine—bathe her feet nightly in warm water—give her an anodyne afterwards, and to seek rather to control the bowels than to give medicines to move them; and if diarrhœa set in to send for me in haste. Giving such general directions, in regard to diet, regimen, etc., as the case required, I left the patient in charge of her owner. The case, I subsequently learned, went on well: the fever continued some fourteen days longer, when the patient convalesced.

Another case in point, not within my practice, yet within my knowledge: A young lady was under treatment by two respectable physicians, for what they considered a case of intermittent fever. Dose after dose of quinine was administered; and the obstinacy and unyielding character of the fever was by them attributed to some local internal irritation or inflammation. A member of the family, in conversation with me, mentioned the case, and I gave it as my opinion that it was Typhoid

fever. A third physician was subsequently called in, and after a full and fair investigation of the case, he pronounced it Typhoid fever. The attendant physicians yielded their assent: the quinine was discontinued; the young lady's fears quieted on the score of internal inflammation; all medication was withheld, save those of a soothing character; she was put upon a mild but generous diet; the fever kept on its course till it exhausted itself, and the patient convalesced after four weeks confinement to bed.

Now, here we have two well marked cases of a *fever* of an *intermittent* type, resisting the ordinary method of treatment, so successfully instituted in the common periodical intermittents of this country.

Is not this one fact of itself sufficient to cause the physician to pause in his career, and ask himself, why is it that I cannot control this fever? Why is it that these fevers are not at all influenced by the great fever controlling quinine? Surely there must be something in the peculiar nature of this fever itself which places it out of the category of the ordinary malarial fevers, over which *quinine* holds complete dominion. Reason thus, Doctor, with yourself, and your quinine and Typhoid fever will come in and settle the question.

In the number of the Southern Medical and Surgical Journal, for Dec. 1851, will be found my "Contributions to the History of Typhoid fever." By reference to that article it will be seen that I have reported thirty cases of genuine Typhoid fever of an *intermittent* character, all occurring on the same plantation, and presenting in their history all that is required to constitute true French typhoid disease, save the *type* of the fever. By reference to those cases, we find them of a purely intermittent character, there being generally a decided intermission of from two to six hours. These were the first cases of Typhoid fever that had ever come under my notice, and I did not hesitate to pronounce them so on my first inspection. Although the type of the fever did not tally with my *book authorities*, yet I was ready to believe that from *climacteric* or *other influences*, the *types* of fevers might change. In the face, then, of authority, I pronounced my opinion, and subsequent observations have confirmed me in it.

We should have an eye to our cases after the example of the great Sydenham, that we may see not only the character of the fever, as influenced by local causes, but also the nature of the epidemic at different seasons, in order that we may successfully apply those principles of treatment which the *peculiar type of the fever* requires.

In conclusion, I would add, that the subject of Typhoid fever is worthy of our serious consideration—should attract the attention and elicit the scrutiny of the Southern physician. Fifteen or twenty years since, we scarcely ever heard of Typhoid fever. Bilious fever was then the *rank weeds* that grew in the pathway of the physician; and with his scythe or cutting knife he went on mowing down the weeds (*and oftentimes the patients*). It was then that the *mercurialist*, seeing nought but the *liver at fault*, and recognizing in *calomel* the *only controlling agent* of its morbid actions and vitiated secretions, went on heavily dosing his patients to remove the great *offending bile*.

The unfortunate patient, in these days, to be cured of *bilious fever*, was to be subjected to a routine treatment of calomel for the first eight or ten days, and when the system was prostrated by the disease, (or mayhap the treatment,) he was then to be put upon a tonic and stimulating treatment. The lancet and mercury first, and *late* in the disease wine and barks.

But, happily for the present generation, a light came, (and, if I mistake not, from the city of Augusta,) which entirely *revolutionized* the treatment of this great Southern scourge. . . . A remission in the febrile paroxysm was sought after early in the disease, and obtained by milder and less injurious means, and when obtained, *quinine was given*, and the *fever broken up*. Since the introduction of the *quinine practice*, we have but little bilious fever in this section of the country: the fever is broken up in its incipiency ere it has time to fasten itself upon the patient in a regular remittancy. Thus, an enemy which had annually extended its ravages from the lakes of the North to the reefs of Florida, leaving desolation in its trail, has given up the warfare, and crowned the "*Queen of Cinchon*" the fair conqueror.

Simple Intermittent fever—in common parlance, chill and fever—then became the prevailing type of fever of the South

and the South-west. The discovery of the febrifuge placed in the hands of the physician a remedy that was positive and certain in its results. There is no problem in mathematics of more certain solution than that quinine will dissolve intermittent fever—to carry out the idea, it is the true solver of this fever.

But, within the past few years, a new form of fever, coming down from the mountains of the Carolinas and Georgia, has appeared amongst us, baffling the skill and setting at nought the treatment of the oldest and most erudite physicians. This fever is now becoming very common in the Southern and South-western States, and, judging from the number of articles that fill the medical periodicals of the South, the profession is laudably engaged in giving and seeking counsel.

If this is to be *the fever* of this country, we should be active in seeking a knowledge of the disease. Let us study it in all its *varied forms*, that we may be able to diagnose it under whatever form it may assume. It is certainly true, that as yet we know no remedy that has perfect control over this fever. The time is *yet to come*, (and it may come,) when we can say to the fever, “thus far shalt thou go.” The prophecy was made years ago by *him* who wrote *knowingly* of Typhoid fever; but the prophecy has not yet been fulfilled. Louis says, “The little success obtained hitherto, ought not to discourage the friends of science and humanity, and induce them to believe that we shall never arrive at a treatment more appropriate to the disease we have been considering. Who could have foreseen the effects of opium, and of cinchona, and the preservative virtue of vaccination? Chance and observation have given rise to these powerful means of preservation. What chance and observation have done, they could do again, and doubtless will do so; and therapeutics, as well as other parts of our science, must expect everything from observation.” Such is the language of this profound Frenchman whose anatomical demonstrations gave a “local habitation” to the disease; and such is the opinion of writers of a later date. Dr. Bartlett, in his late work on Typhus and Typhoid fevers, says, “We may hope that our treatment of the disease will yet become more successful and uniform—more exact in its application, and more positive in its results,

Many 'ministers and interpreters of nature,' faithful to their high vocation, and competent to its duties, are zealously and patiently occupied in endeavoring to accomplish this end. Guided by a sound philosophy, relying upon the one great means of ascertaining the properties and relations of all forms of matter, inorganic or organic, that of observation, they, or their successors *may yet* find, by persevering experiment or fortunate discovery, methods of modifying the living organization, and of correcting its disturbed actions, which shall give us much greater control over the disease than we are now able to exert."

Dr. Norwood thinks he has discovered the great desideratum, and offers to the profession his *Veratrum Viride* as a controlling agent in Typhoid fever. The Doctor certainly instances cases where his fondling has been used with great success. I have never used it myself in this fever, and therefore cannot give an opinion as to its virtues here. Typhoid fever is certainly one of the most prostrating of our fevers; every symptom indicates great nervous prostration; all the vital forces seem at the *lowest* ebb; and my experience with *veratrum viride* is, that it has *per se* the power of producing in the human economy these same demonstrations. It is certainly one of the most depressing agents of the *materia medica*—and I have been unwilling to superinduce upon a pre-existing debility, the increased prostration consequent upon the administration of this powerful remedy. And hence I have thought the *veratrum* more applicable to the treatment of acute inflammatory diseases, than to those of low grade.

I would, *en passant*, give my testimony to its great virtues as a remedial agent. The thanks of the profession, I think, are due to Dr. Norwood for his valuable discovery; and if future investigations shall establish the fact that *veratrum viride* is a *controlling* agent of Typhoid fever, the plaudits of the world shall greet the name and memory of the man through whose agency the fact was established.

ARTICLE XII.

Remarks upon Varicocele, and its Treatment. By JURIAH HARRISS, M. D., of Augusta, Ga.

It has been the prevailing opinion of the profession, that it is best not to operate upon Varicocele, save in the most urgent cases. Palliative treatment has been the rule, and this rule has been established by the fear of fatal accidents attending the operation. It is only since 1830, that plans for its radical cure have been at all favorably received. Even now, operations are very far from being generally advocated. Most English and American authors are still opposed to operating, whenever it can be avoided.

The principal objection that has been offered is the fear of phlebitis. Certainly this risk should be properly contemplated, and the patient advised of it before operating; but this, like many other dangerous operations, becomes, under certain circumstances, not only advisable, but necessary. Among those who give cautious advice is B. Cooper. Cirsocele, he says, can, for the most part, only be palliated, seldom radically cured. In speaking of tying the veins, he remarks that, the propriety of performing this operation for the cure of varicocele may be justly questioned, unless in certain cases of so much suffering and danger as to warrant this hazard.* The pain is sometimes so unendurable, that many writers, and Gooch among the number, (though previous to 1830,) recommended castration. This shows, at least, the necessity of an operation under certain circumstances, and the improvement of surgery has warranted a more frequent active interference on the part of the surgeon. The danger of phlebitis occurring is certainly exaggerated, and too greatly feared. French authors are far more favorable to the operation than the English, and their practice proves that phlebitis is not so much to be dreaded as generally supposed. The results of the operations of MM. Reynaud, Breschet, Aug. Berard, Velpeau, all go to show this. M. Vidal (de Cassis) says: As for myself, I have operated more than 250 times, (1851,) and in this number there cannot be counted more than five cases of phlebitis.† He adds, that an accident, which

* Cooper's Surg. Dict.—Art. Cirsocele.

† Vidal. Pathologie Externe.

merited the name of phlebitis, has never happened to those upon whom he adopted his process of operating. I will speak of his method hereafter. M. Malgaigne states that serious accidents very rarely attend operations for varicocele*. Such authority induced me to look favorably upon the operation, and seeing that the French were so successful, in spite of many unfavorable circumstances—as bad air, bad food, and bad constitutions—I concluded that the operation would succeed here where we have none of these circumstances to contend with. These were the inducements to operate upon the case which will be presently reported.

Still more authority may be adduced in support of the operation. The success attending M. Ricord's practice is weighty in itself. MM. Monod, Michon, and Nelaton, in their report upon a memoir of Escalier, say, that the surest way to avoid the accidents, which accompany varicocele, is to operate. Pain, pruritus of the scrotum, drawing upon the cord, so as to impede exercise and labour, and fatal inflammation of the enlarged veins, which, according to authors, sometimes occur spontaneously, are all inducements to operate. M. Vidal justly remarks that, many opponents of this operation frequently perform others more dangerous—for lesions less inconvenient and less serious. Sometimes the venous mass, by compressing the artery, may lessen its circulation, and cause atrophy of the testicle, independently of any of its direct pressure of the organ. The *vas deferens* is sometimes entirely obliterated. Breschet, and his followers, report but one fatal case, and this they attribute to the imprudence of the patient.

Causes.—They are predisposing and active. The predisposing mostly arise from the peculiar position, anatomical arrangement and physiological uses of the parts. The perpendicular position of the veins when the body is erect, making it necessary for the current of blood to overcome the force of gravity, predisposes to varicocele. Their great length is favorable to its development, inasmuch as the weight and dilating force of the column are proportionate to its length. In addition to this, the walls of these veins are very thin, and consequently less resisting than in others. The spermatic veins are deprived

* Malgaigne. *Medicine Operatoire*.

of valves, and hence the whole column of blood presses upon the walls, and tends constantly to dilate them. The frequent alterations in the amount of blood the veins contain, according to the position of the body, and the indulgence of the passions, are also causes.

The active causes are, abuse of venereal pleasures, masturbation, hence more frequent in the young than the old, horse-back exercise, walking, standing, hernia, tumors in the iliac region, fœcal matters in the lower portion of the colon and rectum, which press upon the veins.

Morgagni observed that varicocele was more frequent upon the left than the right side, which he attributed to the fact that the left vein, in emptying into the renal vein, formed more of a right angle to the current of blood than did the right, which joined the inferior vena cava. An accumulation of fœcal matters in the rectum would press upon the left vein without affecting the right. The left testicle hangs lower than the right, and hence the additional length and size of this vein render it more liable to be affected. Most authors state that varicocele may exist upon one or both sides, separately or simultaneously. Vidal (de Cassis), however, says, that it always exists upon the left.* "This is the most inflexible pathological law with which I am acquainted." He never saw but one case upon the right, and in that instance the heart was upon the right side. I presume M. Vidal intends this as a general rule, not a universal one.

I will say but few words upon the diagnosis, inasmuch as it can only be confounded with hernia. To distinguish varicocele from hernia, it is necessary to place the patient in the horizontal position, when, if the tumor be either it will disappear. But in cases of hernia, if the patient is made to cough, the hernia will re-appear, or an impulse will be felt by the finger applied to the abdominal ring. In varicocele such will not be the case. While in the recumbent posture, if the finger be placed upon the abdominal ring, and the patient requested to stand up, a hernia will not descend, but a varicocele may. These affections may, however, exist together, when the diagnosis necessarily becomes more difficult, and requires greater care on the part of the surgeon.

* *Pathologie Externe*. Vidal.

Treatment.—This may be palliative or radical. The experience of the profession shows that the palliative treatment is extremely unsatisfactory: even the suspensory bandage but very partially relieves the inconveniences attending varicocele. This is particularly the case with the laboring classes. In the summer season, when perspiration is abundant, the bandage, by increasing the heat of the parts, produces very annoying and troublesome pruritus. The secretion from the scrotum during the existence of this disease is more irritating than in the healthy state, and the bandage but adds to this evil. Indeed, even with the application of the bandage, or truss, more or less blood will accumulate in the enlarged veins, and prove an inconvenience to the patient. In some instances, the pain is by no means alleviated by the use of a bandage, and an operation becomes essentially necessary.

The treatment for a radical cure consists in an operation. The processes for operating in varicocele are very various, but the object to be attained in them all is the arrest of the circulation in the varicosed veins. Excision, compression, and ligature, have all been proposed and advocated. The first two have now but few advocates. Most surgeons seem to prefer the ligature when an operation is deemed necessary. Although surgeons are pretty well united in preferring the ligature, they are very much divided in reference to the process to be adopted. There are those proposed by Paré, Breschet, Velpeau, Berard, Ratier, Reymond, Vidal, Ricord, Pancoast, &c. The processes of Vidal and Ricord are, perhaps, the most simple and approved. That of Pancoast, is but a slight modification of Ricord's plan.

CASE. A free mulatto boy, from Atlanta, came to me on the 23d October, 1853, requesting an examination of his testicles, and my advice as to what could be done to rid him of the affection. On inspection, I found his left testicle very pendant and large; the tumour was reducible by pressure, unresisting and compressible, and feeling like so many "earth-worms in a sack." I stated to him the nature of the affection; and upon his informing me that it was very much in his way, and was a very serious inconvenience to him in his daily labor, which was that of a mason, although he wore a suspensory bandage—and that he

wished very much to marry, but could not get his consent so long as he had this uncomely appendage—and, finally, as it had evidently affected his morale, I advised an operation. I explained to him the nature of the operation (for he was very intelligent) and the risks he had to run. He decided on being operated upon the following morning, and insisted that it should be done immediately. With the kind and efficient aid of Drs. Rossignol, Mackie and Barry, I operated upon the 24th. The process I adopted was that of M. Ricord. The bundle of varicose veins was separated from the cord, and a needle, armed with a double ligature, was passed under the veins—a second needle, armed in like manner, was passed above the bundle of veins, through the same cutaneous openings as the first. This was done by letting the veins slip through the fingers, and making the second needle enter the opening of exit of the first, and pass out at the point of entrance made by the first needle. This left a free extremity of one ligature and a loop of the other upon each side. The free ends were passed successively through the loops, and drawn upon. This, of course, formed a subcutaneous ligature of the veins, without including a particle of skin. The free ends were then secured upon small pieces of gum catheter, which completed the operation.

The pain induced by drawing the ligatures around the bundle of veins, lasted some fifteen or twenty minutes, when it passed away, and the patient suffered none afterwards, save a little soreness, which supervened upon the inflammatory action, set up to obliterate the vein.

Dr. Mackie, who had the kindness to attend him during my temporary absence from town, informed me that he had little or no fever during the continuance of the ligature. About six days after the operation I saw him, at which time he had no fever, but the tunica vaginalis of the left side was largely distended with a serous effusion; but little tenderness of the part. We ordered the application of tinct. iodine, which removed the serum in three or four days. Owing to my absence, the ligatures were not removed until the eighteenth day. They could have been removed on the eleventh or twelfth day. During the whole of this time he was kept in bed. When I called to remove the ligature, the patient informed me that he had had,

for some days past, venereal desires—the first for a long time. He was much more cheerful than before, and very grateful. The ligatures were removed without pain, which is one of the beauties of this operation. There was a large lump at the point at which the ligatures had been applied, probably the effusion of coagulable lymph, which blocked up the veins; below this point the veins were empty and felt like mere cords. He was ordered to wear a suspensory bandage for at least a month.

I heard from him a short time since, when he said he felt better than he ever had, and could labor with much more ease to himself, than previously to the operation.

ARTICLE XIII.

A Case of Non-congenital Talipes Varus. By L. A. DUGAS, M. D., &c.

Having reported in this Journal (March, 1853, p. 142) a case of non-congenital Talipes Equinus, I may be permitted now to publish one of Talipes Varus, also of non-congenital origin.

The subject is a daughter of Wm. S. Campbell, Esq., of Henry county, Ga., who, when eighteen months of age, had an acute attack of illness which left her with a partial paralysis of one of her lower extremities. In attempting to walk the affected foot would turn under the weight of the body, so that after the complete subsidence of paralysis the foot remained in the usual position of confirmed and complete talipes varus. She continued in this state until four years of age, when she was placed under my charge.

On the 11th of January last, I performed the sub-cutaneous section of the Tendo Achillis, and placed the foot in Scarpa's shoe. In a fortnight she was able to place the sole of the foot flat upon the floor; and from that time she rapidly improved under the use of a more simple apparatus, consisting of an ordinary shoe, with steel bands running up alongside of the leg.

This is the third instance of non-congenital club-foot I have seen, and it is somewhat remarkable that they were all different. The first was a case of the kind termed, by Dr. Little, Talipes

Calcaneus—existed in an adult, and was not subject to treatment; the second was one of Talipes Equinus, reported as above stated; and the third, one of Talipes Varus, just described.

Augusta, March, 1854.

Of Inflammation of the Peri-uterine Cellular Tissue, and of Retro-uterine Phlegmon in particular. By F. L. J. VALLEIX, Physician to the Hospital La Pitié, Paris. [Translated from L'Union Médicale.]

It may be asserted, in a general way, that our knowledge of inflammation of the peri-uterine tissues is very vague. Systematic works on medicine undoubtedly contain cases of these lesions, but they are almost invariably instances of termination by suppuration,—true pelvic abscesses; so that we are led to believe that the tendency to suppuration in this disease is extreme, whereas I shall presently show that a very small minority of cases end in this way. This single fact proves that this affection has not been properly investigated, since only the rarest mode of termination is recognized at all.

Such an opinion is still farther confirmed by the fact that the disease is nowhere described separately. It is only incidentally mentioned in speaking of phlegmonous inflammation of the iliac fossa, of tumours of the pelvis, of inflammation of the broad ligaments, wherefore we may infer that the symptoms peculiar to it have been completely neglected. If, then, I show that it has its proper signs and symptoms, and two principal modes of termination; if, on the other hand, we can diagnosticate it with precision, it will not be doubted that this disease has often been overlooked. I may mention that M. Satis* and Dr. Bennett,† both of whom have furnished us with interesting researches upon uterine inflammations, do not allude to the affection which we are considering. I may add, however, that several English authors have recently treated of *pelvic cellulitis*, but their descriptions are inexact, and inapplicable to the disease which I am about to discuss.

In eighteen months I have observed: 1. 19 cases of retro-uterine phlegmon; but only 11 of these were recorded with the necessary care; 2. 3 cases of ante-uterine inflammation; 3. 1 case in which the inflammation was seated on one side

* *Des inflammations des annexes de l'utérus et des ligaments larges.*—Thèse, Paris, 1847.

† *Treatise on Inflammations and other diseases of the Uterus.* By Dr. Henry Bennett. Third edition. London: Churchill, 1853.

of the neck; 4. 2 cases in which there was inflammation anteriorly and posteriorly at the same time; in all 25 cases. Of this number, only 17 can be entirely relied upon in making out the history of this affection.

Definition.—I give the name of *peri-uterine* inflammation to that phlegmasia which occupies the vicinity of the point of junction of the neck and body of the uterus, and only accidentally extends to the broad ligaments. We know that there is a space between the anterior cul-de-sac of the vagina and the corresponding reflexion of the peritoneum, filled with fine cellular tissue, described by anatomists and surgeons, especially by Jobert (de Lamballe,) who has dwelt upon the importance of this arrangement in the operation for vesico vaginal fistula. It is at this point and at a corresponding posterior point that the principal varieties of peri-uterine inflammation have their seat. In one case only have I found an inflammatory tumour upon one side of the uterus without any accompanying disease anteriorly or posteriorly.

The number of cases which I have cited, proves that this affection is quite frequent. Any one can convince himself of this, who, with a knowledge of the symptoms, explores the genital organs in the manner described hereafter.

Causes.—It is as yet impossible to indicate with precision all the causes of peri-uterine inflammation. As facts are accumulated, this knowledge will be supplied.

The *age* of my patients varied from seventeen to forty-two years. In no instance had the cessation of the menses occurred. This fact is valuable, for it proves that the inflammations we are describing are produced during the period in which the uterus enjoys all its functional activity.

I observed nothing deserving of mention in the *constitution* or *temperament*.

Of the 17 carefully recorded cases, 11 related to women with dysmenorrhœa, dependant upon congestion.

In 3 of the 25 cases, the patients laboured under uterine displacement, which had been treated by the uterine *redresseur*.* I do not place the use of this instrument among the proximate causes, because the inflammation did not arise immediately after the application of the pessary, but many days afterward, the menses having intervened, and no bad symptom having occurred in the interval. The inflammation may be thus explained. On the one hand, we know that the first return of the catamenia after the use of the stem pessary is characterized by increased abundance in the menstrual flow; the san-

* Simpson's *stem pessary*, modified by Valleix; commonly called the *impaling uterine machine*. TRANSLATOR.

guineous fluctus, then, is greater than usual. On the other hand we shall see that it is particularly during the menstrual epoch that the inflammation we are describing is produced; because undoubtedly, the tissues which surround the uterus are the seat of an hyperæmia, which, when excessive, easily passes into inflammation. We can readily understand, therefore, how the reduction of the uterus, by favoring this hyperæmia, likewise favours the production of inflammation. We must not imagine that the instrument produces this effect by offering direct violence to the uterus or the tissues surrounding it. This may happen in some cases, if the pessary is applied carelessly, especially if the genital organs are already inflamed; but it did not occur in the cases I have cited.

Lastly, I have seen two cases in which the peri-uterine tissues were painful and swollen, and presented, in a word, all the symptoms of sub-acute inflammation, and in both of which the patients had, at several catamenial periods, acute inflammation of the retro-uterine tissue, of which the pre-existing inflammation was evidently the predisposing cause. The following is a striking example of this:

CASE I. A dress-maker, aged 22, entered *la Pitié*, Ward S. Geneviève, No. 25, in 1852.

Her catamenia appeared at 13, and have always recurred regularly; she became pregnant at 15½, and was safely delivered at term. The following year she miscarried at two months, without any assignable cause. She continued to enjoy good health until her last pregnancy, during which she suffered from prostration and pains in the abdomen and loins. Three months and a half ago her accouchment took place. Everything transpired happily, and the patient left her bed on the sixth day.

Soon after, she suffered pain in walking, with a sense of weight in the rectum and fatigue in the limbs. She had occasional attacks of vomiting, and micturition and defecation were painful; coitus became excessively painful.

Five weeks before she entered *la Pitié*, she was treated in a neighbouring hospital. A blister was applied to the epigastrium, which relieved the vomiting, but the other symptoms were not amended. She only remained a week under treatment.

At the end of that period the catamenia appeared, but instead of lasting only four days as usual, they were protracted, and an abundant hæmorrhage, alternating with profuse leucorrhœa, lasted for twelve days. There were expulsive pains in the rectum, and lacerations in the abdomen. Urination and defecation were accompanied by severe suffering. The appetite disappeared. This condition lasted until the patient entered *la Pitié* twenty days ago. Her physiognomy expressed suffering, but was not anxious or contracted.

Upon a vaginal examination, we found the neck of the uterus in-

elined forwards, its orifice slightly gaping. The body of the uterus could not be felt by the hand on the abdomen, even when the organ was lifted by the finger in the vagina.

When the finger was carried to the posterior cul-de-sac, it detected a globular tumour, of doughy feel, immovable, and very painful upon pressure. The tumour filled the concavity of the sacrum, and reached along the sides of the uterine neck as though it would embrace it. The tumour was felt compressing the rectum when the finger was introduced into that cavity. The abdomen was yielding, undeformed, painless upon pressure.

The pulse, although feeble and slightly accelerated, was regular. The first sound of the heart was accompanied by a very faint bellows murmur.

I did not wish to use the catheter immediately, for fear of occasioning too much pain, and I prescribed : 10 cups upon the abdomen ; cataplasms ; emollient vaginal injections containing opium ; an opium pill ; a laxative enema ; repose in bed, and diet.

Two days subsequently the appetite returned. The pain had so much diminished that I was able to introduce an uterine sound. It entered without encountering the slightest obstacle, and while it was in the uterine cavity, the tumour already alluded to was felt distinctly behind the cervix. (*Baths. Repose. Laxatives.*)

Under this treatment the tumour gradually diminished, and the other symptoms disappeared. On the tenth day all spontaneous pain had subsided, but pressure still produced pain. On the fifteenth day there was no pain on pressure, and the tumor was reduced to half its volume.

On the twentieth day its existence could hardly be detected ; the strength had returned, and the patient left the hospital.

Reflections.—What was the disease from which this woman suffered before she entered the hospital ? Was it not an affection altogether similar to that for which she was treated ? There is every reason to believe so, for the symptoms were the same. Moreover it is not uncommon to meet with cases of relapse at longer or shorter intervals, so that this case, regarded from that point of view, is not at all exceptional.

The disease appeared at the catamenial period, and there was considerable menorrhagia. There is nothing extraordinary in this, for this affection begins at the menstrual epoch in the great majority of cases, and there was a sub-acute inflammation of the womb, as was shown by direct exploration ; now, according to the recent researches of Hérard, metrorrhagia is a common symptom of metritis.

In a single case out of 17, the disease supervened a short time after delivery. Perhaps this may hereafter be found to be a more common cause. It is remarkable, however, that it should apparently have had so little influence in the cases I

have observed, when it is recollected how frequently inflammation attacks the broad ligaments after parturition. We must not confound with these cases those in which inflammation existing primarily in the iliac fossa subsequently invades the cellular tissue around the neck, because, in the latter, there is a simple extension of inflammation.

Inflammation of the uterus and vagina may nevertheless extend to the peri-uterine tissue, and produce the disease which we are considering. I observed an instance of this in a girl of 17, who had contracted a vaginitis. The inflammation attacked the uterus and subsequently the peri-uterine tissue; the extension of the inflammation caused acute pain, and produced a tumour which suppurated.

In one case, the peri-uterine inflammation occurred after excessive indulgence in coition.

In all the other patients, there was no appreciable proximate cause. During the catemenial period severe pains occurred; fever lighted up, and the disease declared itself.

Symptoms.—The symptoms of this affection are very characteristic, and admit of a positive diagnosis. They differ in some respects according to the seat of the disease, which we consequently divide into three principal varieties. The first is *retro-uterine phlegmon*; the second is *ante-uterine phlegmon*; and the third is a combination of these two species. In describing the first species I shall make known the symptoms which are common to the three; it will be sufficient afterwards to indicate the peculiarities of the two others.

1. RETRO-UTERINE PHLEGMON.—*Outset.*—Before experiencing the characteristic symptoms of the disease, all of the patients suffered for some hours from malaise and a sense of weight and heat in the rectum. Six out of eleven had a marked chill. In all there was loss of appetite and constipation.

The first symptom of the confirmed disease is pain. Spontaneous pain is a constant symptom; it is always considerable and sometimes excessive. It comes on with violent exacerbations, which are sometimes unendurable, the patients rolling on their beds, contorting their bodies, and uttering cries. They describe the pain differently. Some complain of a sensation of burning, others of a painful throbbing, the majority of a violent lancinating pain. Pain upon pressure is not less constant; it is developed by pressure upon the hypogastrium, by percussion, by vaginal exploration, and especially by the passage of fecal matters through the intestine. Defecation causes acute-suffering in the region of the sacrum and anus, and is usually the signal for one of those violent exacerbations already described.

There is one constant and remarkable symptom which deserves especial mention. I refer to the expulsive pains which are felt in the rectum. The patients experience the sensation of a foreign body in the gut, which induces ineffectual contractions, and which depends upon two different causes: upon the pressure of the inflammatory tumour upon the anterior wall of the rectum, and upon the propagation of the inflammation to the coats of the intestine, which is manifested by the expulsion of mucus. These pains, which have been already remarked in retro-uterine hæmatocele, are more striking in the disease of which we are speaking, and amount to something characteristic.

By the finger in the vagina, a tumour is discovered behind the neck of the uterus, and separated from it by a deep furrow. When this tumour is very large, it completely effaces the posterior cul-de-sac, as I observed in a case which I shall mention farther on, which terminated in suppuration. The size of this tumour is usually equal to the half of a hen's egg; the angle formed between it and the cervix almost equals in depth the posterior vaginal cul-de-sac. The transverse rugæ of the vagina may be felt upon the surface of the tumour, which is immoveable, of soft consistence, but without fluctuation. The contact of the finger at this point gives great pain. We shall find, when we come to speak of the diagnosis, that this state of things so closely simulates retroflexion, as to have often been mistaken for it.

Exploration by the rectum causes great pain, and may usually be dispensed with. It enables the physician to feel a tumour in front of the gut.

When the tumour is of greater size, its surface is smoother, but not so much so as in retro-uterine hæmatocele. By one finger in the vagina and another in the rectum its inferior portion may be pressed, and we may judge of the amount of thickening in the recto-vaginal partition in which it is developed. Occasionally, at a certain period of the disease, manifest fluctuation may be detected in this way.

At the same time, the finger in the vagina finds heat, pain, and throbbing in the neck of the uterus; in a word, all the signs of inflammation of that part are manifested. By palpation, with the hand on the hypogastrium, we find that the other peri-uterine tissues, the broad ligaments, etc., are yielding and exempt from inflammation.

A speculum examination is extremely painful and is generally useless. It may show the visible symptoms of inflammation of the cervix, which has already been revealed by other symptoms.

As regards the digestive organs, the symptoms are usually limited to loss of appetite, slight thirst and nausea, and obstinate constipation with the expulsive pains I have already mentioned; or, when the inflammation extends to the rectum, diarrhœa comes on, with tenesmus, and mucous passages similar to those of dysentery.

In two cases, bilious vomiting, continual nausea and slight salivation, were conjoined with the preceding symptoms. The inflammation, in these instances, had evidently spread to the peritoneum, as was shown by the hypogastric tenderness, etc.

There was no derangement of the urinary organs so long as the ante-uterine cellular tissue was not involved.

The pulse was moderately accelerated in the majority of cases; in the two instances in which the neighbouring peritoneum became involved, it rose to 108 and 114, and became small and feeble; in the other cases it was never beyond 90, and preserved its ordinary volume.

The face was always anxious, and, during the exacerbations expressive of the greatest suffering.

The decubitus was usually dorsal, the head being raised and the trunk slightly flexed.

I have never observed any cerebral symptoms.

Such are the symptoms of this disease. In cases in which suppuration is established they are modified, and then rapidly amend when the abscess opens and liberates the confined pus. But I shall return to this point in speaking of the terminations of the disease.

2. ANTE-UTERINE PHLEGMON.—As I have already mentioned, I have only observed this inflammation in an isolated form three times. The symptoms peculiar to it are the following: The patients experience acute pain in the hypogastrium with exacerbations. The finger in the vagina finds the posterior cul-de-sac perfectly free and yielding. In the anterior cul-de-sac, on the contrary, it discovers a tension, an unusual resistance caused by inflammation, and not a rounded and circumscribed tumour as in the preceding variety. The condensed nature of the tissue uniting the vaginal wall to the bladder, explains this difference. The lateral limits of this tension cannot be perceived distinctly. Pressure upon the tense parts occasions the most acute pain, and the same result is caused when traction is exercised upon the part by pushing the cervix uteri backwards.

Another constant symptom is the pain caused by the vesical contractions during micturition. Frequent and irresistible desire to urinate also supervenes.

All of the symptoms described under the former variety, except those which have their seat in the rectum, belong equally to this. I have remarked, however, that peritoneal symptoms were more commonly manifested in the ante-uterine variety; because, no doubt, inflammation extends upwards with more facility in the direction in which the tissue is looser.

3. ANTE AND RETRO-UTERINE INFLAMMATIONS COMBINED.—This variety does not require a separate description, since a portrait of the disease may be had by adding the symptoms peculiar to each of the other varieties to those which are common to both. It is sufficient, therefore, to mention it. I have seen but two cases of it; in these inflammation appeared first in the parts behind the cervix, and was not developed anteriorly for two or three days.

As to the case in which the inflammation was located on one side of the cervix, inasmuch as the tumour inclined backwards towards the rectum, the symptoms of the first variety predominated.

Progress, Duration and Termination.—The progress of the disease should be studied with the greatest care, for it furnishes matter for the most important considerations. It presents, as I have already repeatedly mentioned, violent exacerbations. These occur even when the inflammation remains limited to the parts posterior to the uterus, and can only be explained, under these circumstances, by the successive invasion of many closely connected portions of the peri-uterine tissue. When inflammation extends to more distant parts, as the lateral or anterior cellular structure, these extensions also occur at intervals, and account for the exacerbations.

These intervals of violent pain and relative calm give this affection a peculiar physiognomy, with which the physician must be well acquainted not to be led into error. The first symptoms are violent, they amend rapidly under treatment, or even disappear altogether, and the physician may imagine that the disease will gradually subside; but it is not so. At the end of eight, ten, or even twenty-four hours, the symptoms returned with increased intensity, and so proceed in an irregular intermittent form for six or eight days. In some cases I have even known this intermittency to resemble periodicity so closely as to induce the attendants to administer sulphate of quinia.

The duration of the affection, when it terminates in resolution, is usually eight or ten days. After this period, however, a painful induration still remains at the part which was inflamed, and the patients should be very prudent. When the disease

terminates in suppuration, the symptoms are more protracted, because several days elapse before the purulent collection forms; after this, a natural or artificial opening into the tumor promptly relieves the patient's sufferings.

The disease ordinarily terminates in resolution. In 25 cases, I have seen suppuration only twice in retro-uterine inflammation, once in ante-uterine inflammation, and once when inflammation occupied both the anterior and posterior cellular tissue; in all, 4 cases out of 25. This is a very important point, for it proves that this disease has been often misunderstood, since it has only been studied in those cases in which it has produced an abscess, and yet it is not less strikingly characterized when it terminates by resolution.

Fluctuation is readily detected only in the retro-uterine variety and in those cases alone of this form in which the tumor projects considerably between the rectal and vaginal walls. In all of the cases which I have observed the pus found its way into the vagina; we can easily conceive, however, that the abscess may open into the rectum. When the tumour opens spontaneously into the vagina, the genital organs are found bathed in pus, but it is usually impossible to discover the orifice by which that liquid escapes, concealed as it is in the folds of the vagina.

In some instances the pus has been evacuated by the bistoury, as was done in the following case:

CASE II.—*Retro-uterine Phlegmon.—Termination by suppuration.*—Marie Gautrou, aged 30, entered *la Pitié*, May 3d, 1853, Ward S. Geneviève, No. 26.

This woman gave birth to her first child on the 21st of February, 1853. Her labor was natural, and only lasted six hours; she was delivered of a male child, at term. Three days afterwards she was attacked by high fever and nervous agitation, and was bled; she got up in nine days.

A fortnight after her confinement, without having had either chill or fever, she was seized with violent pain in the hypogastrium, especially on the right side, with cramps in the limbs; at the same time there was a slight oozing of blood from the vagina. She simply applied cataplasms on the abdomen.

For the last fortnight she has been more sick. She has had pain in the left iliac fossa during her catamenial period; defecation has become difficult and painful, and she suffers from colics and expulsive pains in the rectum.

May 4th. Upon percussing the hypogastrium, we found dullness for three fingers breadth above the pubis. Upon palpation, the fundus of the uterus was felt to be large and rounded. By the finger in the vagina, it was ascertained that both the body and neck of the uterus were carried slightly forwards. Behind the cervix, which

was patulous, we perceived a fluctuating tumour, which seemed to be a part of the uterus. The posterior cul-de-sac was obliterated. The tumour had a smooth surface, was soft, and very painful on pressure. It descended to the commencement of the middle third of the posterior wall of the vagina. Upon introducing the middle finger into the rectum and the index into the vagina, the tumour could be felt between the two.

The tumor obtruded upon the rectum, and gave rise to tenesmus. The pulse was normal, and the heat of skin was not augmented. (15 leeches to the hypogastrium; emollient enemata with opium; emollient injections; cataplasms.)

May 8th. The tumour projects farther into the vagina, and presents fluctuation. The sense of weight in the rectum and the tenesmus continues; the patient passes only a little liquid matter in her stools. There is still pain and resistance upon pressure in the hypogastrium. (Emollient injections and cataplasms; an opium pill; 12 leeches to the hypogastrium.)

May 10th. There is less prominence in the vagina; fluctuation is evident; the pain has diminished. There have been neither chills nor horripilations, but the pulse is somewhat accelerated and the heat of surface is increased.

May 13th. The patient has suffered much less since the leeches were applied. The vaginal wall of the tumour has become very thin.

On the night of the 19th the tumour opened spontaneously, but a very small quantity of pus escaped. The next day I made a large opening with the bistoury, and gave issue to the remainder of the purulent collection.

Four days afterwards the tumor had almost disappeared, and the pain had greatly diminished.

The 25th of June the patient left the hospital perfectly well, with the exception of a slight induration of the recto-vaginal wall.

Reflections.—In this case we have all the symptoms of retro-uterine phlegmon, uncomplicated with peritoneal inflammation. The patient had been delivered two months and a half when she came under my observation. Should we refer the commencement of the retro-uterine inflammation for which she was treated to the period at which she experienced pain in the hypogastrium and cramps in the limbs, two weeks after her confinement? I think not. An inflammation of this sort may have existed at that period, but it must have subsided spontaneously, for the patient was free from pain until the occurrence of the characteristic symptoms which appeared a fortnight before her entrance into the hospital. Most probably there was simple metritis on the first occasion, for, it will be remarked, there were then none of those symptoms about the rectum which give the disease we are considering its peculiar physiognomy.

When the inflammation is located in the parts anterior to the uterus, pus may likewise find its way into the vagina, as I have seen it to do in one instance. I know of no case, however, in which such an abscess has been opened by the knife; for under these circumstances, the tumour is not prominent, and it is difficult to detect fluctuation.

In one instance I have known the abscess to open into the bladder. This accident was announced by frequent desires to urinate, pain after micturition, and the presence of a quantity of foetid, greyish, diffuent pus in the urine.

Lastly, the inflammation sometimes extends to the broad ligaments, and the disease then assumes other symptoms, with which every one is acquainted,

Anatomical Lesions.—As peri uterine inflammation is not in itself a cause of death, we should be ignorant of its exact morbid anatomy had not the extension of the inflammation, or the rupture of an abscess, occasionally given rise to fatal peritonitis, or some other grave lesion. In such cases there have been found in the reduplication of the vaginal wall and rectum or in the cellular tissue uniting the bladder and uterus, abscesses containing phlegmonous or sanious pus, and the different openings into neighboring cavities to which I have already alluded. It would be useless to enlarge upon this point.

Diagnosis.—The diagnosis of this disease was very difficult before the introduction of the modes of exploration which we now possess. The affection was then only recognized by a few physicians, and by them only in those cases in which an abscess formed. I have myself witnessed many very pardonable errors of diagnosis.

Retro-uterine phlegmon is most likely to be confounded with retro-flexion. A vaginal exploration gives almost identical results in the two cases. In both, the cervix is a little forward, there is a tumor at the posterior and superior portion of the vagina, and a deep sulcus between the cervix and the tumor. The tumor is harder and less painful in retroflexion, it is true, but these are insufficient distinctions. Doubt is immediately removed, however, by the employment of the uterine sound. In retro-uterine phlegmon this instrument readily enters the uterine cavity, and penetrates an inch or more, *and the tumour remains immovable*. Sometimes the inflammatory swelling is so great that the womb is deviated to the right or left. If, then, there is some difficulty in introducing the sound, it is not necessary to employ force, but the beak of the instrument should be gently inclined to the right and left, and it will presently advance towards one or the other of the iliac fossæ.

I have been consulted three times for supposed retroflexions,

which were nothing but inflammations of this sort. In two of them, painful pressure had been employed with a view of reducing the deviation. The mode of exploration which I have described proved the error which had been committed, and the patients recovered under the treatment which I shall presently detail.

The same method of diagnosis will distinguish retro-uterine phlegmon from a tumor of the posterior wall of the uterus, from an ovarian tumor, etc.

Inflammation of the cellular tissue between the cervix and bladder may be mistaken for cystitis. The circumscribed pain and tension in the anterior vaginal cul-de-sac, and the gastric and peritoneal symptoms will suffice to prove the existence of the first of these two affections.

Prognosis.—Notwithstanding the severity of the symptoms, the prognosis is not grave. It only becomes so when inflammation extends to other parts; but then we have another disease. The most favorable point of opening for the abscess is the vagina.

Treatment.—The treatment of these affections may be summed up in a very few words.

General and local blood-letting should be employed in the first instance with considerable energy. I have principally relied upon cups and leeches, and have almost always had to employ them three or four times to combat the exacerbations to which I have alluded. They invariably produce some relief.

The second method consists in the application of very small blisters, dressed with a salt of morphia, (gr. $\frac{1}{2}$ to gr. j.) I direct them to be renewed as often as they dry up. By calming the pain, they render the progress of the disease more uniform. Their good effect was manifest in every case.

As adjuvants, we have cataplasms, hip-baths, emolient and narcotic injections, narcotics internally, ice, Selzer water, and the portion of Rivière* in case of vomiting.

When constipation is obstinate, as it usually is, a laxative should always be administered. It may consist of magnesia, citrate of magnesia, sulphate of soda, etc.

Lastly, diet and the most absolute rest, complete this simple treatment by the aid of which the disease almost always terminates by resolution.

When abscess occurs it may be opened with the bistoury;

*The anti-emetic portion of Rivière consists of: Citric acid, grammes ij., (gr. xl.); Simple syrup, gram. xxv., (℥j.); Bi-carbonate of potassa, gram. ij., (gr. xl.); Water, gram. cxx, ℥ ivss.) The American measurements are only approximate, but the proportions are observed.—(Taken from the *Formulaire des hôpitaux de Paris*.) TRANSLATOR.

but this operation should not be attempted unless the tumour projects considerably into the vagina, and fluctuation is unmistakable. When the abscess opens spontaneously, the orifice is sometimes too small to allow of the perfect evacuation of the pus. Under such circumstances the opening should be enlarged by a probe-pointed bistoury, the parts being exposed by a bi-valve speculum. If the spontaneous opening cannot be discovered, a simple puncture should be made, after which the probe-pointed knife may be used as before.

When the pus flows into the vagina, emollient injections should be frequently employed; or if it escapes by the rectum or bladder, it is equally useful to wash out these organs with some emollient liquid.—[*Virginia Med. and Surg. Journal.*

General Emphysema in Children. By Dr. ROGER.

On seven different occasions, I have seen children, who, without any appreciable external cause, without any apparent surgical lesion, without having made any violent muscular effort,* and almost always during the course of some affection of the chest, presented suddenly the following symptoms: A tumour appeared at the lower lateral or anterior part of the neck, without any discolouration of the skin, spreading but not disappearing under the pressure of the hand, and giving an evident sensation of crepitation. This tumour, or rather this prominence, at first less than an inch in diameter, extends whenever the child cries or makes large respiratory movements; it gains the face, puffing up the cellular tissue and completely altering the physiognomy, and descending towards the arms, thorax and abdomen, it involves the whole surface, unless its progress is interrupted by death.

The pathognomonic crepitation tells us at once the nature of the affection. There is evidently emphysema of the areolar tissue, which, originating in some thoracic lesion, has progressed by continuity and contiguity in every direction.

While this infiltration of air is going on, grave functional disorders make their appearance. The respiration, already accelerated by the primary disease, becomes yet more rapid; the pulse becomes extremely frequent and small, and in a few hours, or one or two days at the utmost, the child succumbs to asphyxia, complicated, perhaps, with coma and cyanosis, its body disfigured and monstrously distended.

* M. Velpeau has presented to the Academy of Medicine, in the name of M. Vitali, a case of general emphysema, supervening in a boy while he was struggling to disengage himself from the arms of a play-fellow.—(*Arch. Gén. de Méd.*, t. xxi., p. 372.)

What was the *cause* of this general emphysema in these seven cases? Is it possible to admit a spontaneous gaseous exhalation, a true secretion? or shall we rather suppose that the air-passages were opened at some point and placed in communication with the peripheral areolar tissue? Without denying absolutely the possibility of the development of gas in living parts,* I believe that the emphysema which occurred in these cases is much more naturally explained by supposing some solution of continuity in the air-passages.

This explanation is confirmed by analogy. Emphysema occurs in childhood as well as at other periods of life, from surgical injuries involving the organs of respiration; it is not rare in difficult labours in which the patients strain violently; it has been observed in adults, in cases of rupture of sub-pleural pulmonary emphysema,† or of opening of a tubercular cavity at the apex of the lung into the cellular tissue of the inferior portion of the neck. Dr. Boddand, of Gand, has reported ‡ the case of a young girl of 16, who died from general emphysema, in which was discovered "in the right ventricle of the larynx, a little below the vocal chord, a small round ulcer, perforated in its centre," through which the air had entered the cellular tissue. Dr. Burgraëve has even cited an example of general emphysema consequent upon softening of the stomach with sub-peritoneal rupture of that viscus.

It was in children presenting analogous pathological conditions, that I observed the development of general emphysema. The reader may judge by the following cases, which I will sum up briefly:

CASE I. B——, a little girl of two years, had laboured under double pneumonia for several days. One morning I noticed a swelling of the lower part of the cheek with the characteristic crepitus. The emphysema extended to the neck and upper part of the chest, and death occurred in less than forty-eight hours. The application of dry cups over the emphysematous parts gave no relief.

* The development of gas during life is not rare, says Vogel, (*Encyc. Anatom.*, t. ix., *Path. Anat.*, Am. ed., p. 38); it takes place in putrid fevers, in typhus, and gangrene. It is commonly evolved from the animal fluids, especially from the blood, when, before undergoing any chemical decomposition, it is arrested in different parts of the body, and its purification by respiration and secretion is thus impeded; or, when certain secretions, as the bile and urine, are checked, and their constituents remain in the blood. *Gaseous products are then developed, which collect in the parenchyma of organs, and in the cellular tissue, constituting emphysema.* Authors have also spoken of spontaneous gaseous exhalation after the bite of the rattle-snake; but they do not allude to the infiltration of this gas, (except, perhaps, in the cases of gangrene observed by M. Sigaud; see his work on the *Diseases of Brazil*.)

† *Archives Générales*. 1843. T. i., p. 473.

‡ *Gazette Médicale de Paris*. T. viii., p. 698.

CASE II. A boy of three years, affected with a pneumonia following whooping-cough. Emphysema of the neck, thorax, face and abdomen. Death two days afterwards.

CASE III. A girl of five years, at Villette; symptoms of broncho-pneumonia. The face and neck were emphysematous when I saw her; high fever and dyspnœa. Death was impending.

CASE IV. A boy of four years, of robust frame. Bronchitis; pleurisy of the left side; paroxysms of whooping-cough without sibilus. After three or four days, emphysema was discovered one morning. It occupied the face and neck, subsequently the thorax. M. Roux was called in consultation and proposed punctures, which were not practiced.

CASE V. An infant daughter of Madame L——, at Gonesse: double broncho-pneumonia. Emphysema mistaken for anasarca, had extended to the abdomen. I was called in consultation, and arrived when the child was moribund.

CASE VI. A little girl of one year, suffering from impetiginous eczema of the scalp; with profuse sero-purulent discharge. On the third day a tumefaction appeared altogether analogous to that which characterizes *mumps*. High fever came on, and vomiting and a greenish diarrhœa; subsequently there were some convulsive movements, and then emphysema appeared upon the neck and extended to the face and thorax. Death occurred in two days, there having been no diminution in the sero-purulent discharge.

CASE VII. Quite recently I was called in consultation by Dr. Ozanam to a child of five years, who had been attacked successively by measles and broncho pneumonia. Dyspnœa and extreme frequency of pulse had supervened, and, at the same time, a superficial emphysema, which was at first circumscribed, but which extended gradually over the trunk as far as the navel. The pneumonia had been treated by Kermes mineral, calomel, aconite, and blisters. I advised numerous punctures, and Dr. Ozanam accordingly inserted a fine trocar a great number of times. This treatment was fortunately successful, and an altogether exceptional cure was obtained. Dr. Ozanam will soon publish the details of this case, which, we believe, is unique.

To the foregoing cases we would add:

1. Three or four similar observations which M. Guersent encountered in his long career, but in which no autopsy was made.

2. A case which is somewhat analagous to those which precede. It relates to a child on whom M. Guersent (the younger) practiced tracheotomy to prevent asphyxia from croup. The air in passing through the opening made in the trachea infiltrated itself into the cellular tissue of the edges of the wound, and, notwithstanding methodical compression, it gained the face and thorax and thence occupied the whole body. The child died in three days.

3. A case published in *L'Union Medicale* (Feb. 8th, 1853), by M. Sandret, of Besançon. In a child affected with hydrophobia, a spontaneous emphysema appeared on the last day of life, and pervaded the whole surface.

Upon examining the facts which I have briefly recapitulated, it will be seen that in every case the patients were affected with some acute disease of the respiratory organs, just as Natalis Guillot observed in the cases which he has reported. In all, the characteristic sub-cutaneous crepitation was first manifested either in the course or in the immediate vicinity of the organs of respiration.

Should we not conclude from these facts, and from the foregoing considerations, that in these young subjects some laceration of the mucous membrane of the trachea, or some rupture of the pulmonary cells and corresponding pleura occurred during a fit of crying or coughing, and that the air passing through this orifice gradually permeated the cellular tissue of the whole body. Such must have been the mechanism of the case of general emphysema which I met in my private practice, although I was not allowed to make an autopsy by which this assertion might be verified.

M. Guillot, more fortunate than I, has proved this fact in the most positive manner by his remarkable researches.

The *prognosis* of general emphysema is extremely grave. With one exception, every case I have seen has rapidly terminated in death. Dr. Ozanam's case proves, however, that death is not inevitable, and that the lesion is not altogether hopeless.

The dilatations of sub-pleural emphysema, when they burst, which is a most rare occurrence, are perforated by an exceedingly minute orifice, as M. Guillot has demonstrated; it is not impossible, therefore, that occlusion may take place almost immediately by means of adhesive inflammation. The perforation once obliterated, (as happens in pneumo-thorax sometimes,) the air infiltrated into the cellular tissue may be absorbed. What we observe in traumatic emphysema of the walls of the thorax, proves that absorption is not very difficult under such circumstances.

As to the treatment of general emphysema, I believe that absorption of the infiltrated air may be promoted by resolvent applications; but it is first necessary to combat the immediate effects of the laceration of the lung, that is to say the progressive permeation of the cellular tissue. Calmatives, opiates, other narcotics, and digitalis, diminish the frequency of the respiration, and consequently the chances of generalization of the emphysema. The little patients will at least be comforted,

and the fatal termination retarded; and it is not impossible that by gaining this delay adhesive inflammation will have time to obliterate the perforation.

I believe, however, that it is perfectly justifiable to evacuate the air by slight incisions, or punctures with a fine trocar, without waiting for an occlusion of which there is only a bare possibility, or for a re-absorption which is a very tedious process. It will be seen (case vii.) that this course was adopted in the only instance in which a cure has been effected.—[*Rev. Méd. Chirurg.*, from *Gaz Méd. de Strasbourg*, and *Ibid.*

On the Medical properties of Nitrate of Soda. By J. B. BROWN, M. D.

This article which in many works on *Materia Medica* is not even mentioned, seems to be possessed of qualities too valuable to be entirely passed over, or as is done in some books, merely quoted for the purpose of calling its name. As I have made use of this drug with much success in my own practice during the last two years in this country, I deem it a duty to communicate the results to our profession.

The first notice of the physiological action of this salt I found in a medical journal for 1843, in which Dr. Zimmerman published the results of his experiments; it is as follows:

“Nitrate of Soda dissolves the protein element of the blood much less than Nitrate of Potassa, coagulated fibrin being but very little or rather not at all influenced by it, while at the same time it contracts the blood corpuscles much more firmly even to shriveling, and renders the serum redder and richer in hæmatin.”

Rademacher, a Physician of Vienna, was probably the first who used this article to any very great extent as a therapeutic agent. As he attributes to it the most extraordinary properties in different diseases, claiming it as a universal remedy and recommending it in the most heterogeneous affections without stating any particular indications for its use. I was induced two years since to make some experiments myself for the purpose of ascertaining whether the medicine possessed the value which its friends had claimed for it. Rademacher thinks that it is more useful in gastric fevers than Nit. Potassæ, which as an active solvent of fibrine, causes a more rapid putrescence, and which in cases where the *a priori* zymotic tendency is evidently contra-indicated, whilst the Nit. Soda although it restrains the pseudoplastic process, does not produce any excessive evacuations.

When given as a gentle laxative this salt is easily borne, but when given in large quantities it produces fluid passages with tenesmus. Nevertheless according to my experience with this remedy in the prevailing diseases of this country such as irritation of the mucous membrane of the intestines and especially in acute or chronic dysentery, its value can scarcely be surpassed by any other agent of our materia medica. No remedy has so rapidly succeeded with me in restoring natural passages and relieving the intense suffering in the worse forms of this annual complaint, as Nitrate of Soda. Most of my cases, I had to treat only four or five days, when all the symptoms under the influence of this specific, if I may use this term, disappeared entirely. Other cases, in which a cure was not so speedily brought about, were comparatively rare, and I found this fact greatly owing to a fault of diet or some other unfavorable circumstance of the patient. Nevertheless I have been so fortunate, as never to treat any case of dysentery longer than at most for a fortnight, whilst out of 6 cases I generally restored 5 of them to health, within the above mentioned limited space of a few days. It is not my purpose to enter into a detail of the treatment of this disease, but I will confine myself here to a single remark, that of all the remedies in use against it, there is no one existing, to my knowledge, safer, quicker and more innocent in its agency, than the one under consideration.

The formula I usually employ is this :

R	Ol. Amygdal. dulc.	3iv to vj
	Gum Mimos.	3ij to iiij
	Aq. distillat.	3jv to vj
	Fiat lege artis emulsio, cui adde	
	Sodæ Nitratis	} aa
	Aquæ lauro-Cerasi	} 3 ss
	Syr. Simp.	3j

M. S.—A table-spoonful to be taken every one to two hours, after having been well shaken.

For children I prescribe the half or only third part of the quantity, and I found it an excellent means for overcoming in their different forms, diarrhœa and dysentery, at least for the purpose of diminishing the irritability of the bowels, after which other remedies, according to the indications of the case, might be made use of.

After the evacuations have become normal, the medicine is to be continued for one or two days, on account of a great liability to relapse, which not unfrequently may very disagreeably surprise both the patient and physician. But this disposition is owing to the disease itself, as every practitioner will agree, and not to the specific effect of Nitrate of Soda. In some cases of

the most severe characters I ordered the addition of a few grains of the Extract of Opium to the former mixture, in order to allay more rapidly the extremely painful tenesmus and the nervous excitement in general. I prefer the extract to the opium in substance, because it has a milder effect, quieting the system more and not producing that peculiar venous orgasmus, which opium itself does. But I must remark here that even this milder preparation of opium ought never to be used for several days in succession for reasons I can not now explain, being beyond the limits of my present purpose. One of my patients, who suffered in a dreadful manner, after taking a mixture of brandy with pepper, in order to stop the whole matter at once, as he thought, had to take the above described portion four times one after the other; within 7 days he was perfectly restored.

I have been now in more than a hundred cases of dysentery so successful, as to restore my patients within the period of from 4 to 14 days at most, under the principal influence of Nitrate of Soda, never using a single grain of calomel, which I avoid for fear of salivation and of its consequence, these being often as bad a complaint as the former, or even still worse. I would therefore recommend this salt as a very powerful and innocent substitute for calomel in all the different forms of dysenteric or congestive diarrhœa and dysentery.

I would mention, en passant, that tonics or astringents are to be employed, whenever, after the disappearance of the characteristic mucous discharges, a tendency to a diarrhœa from atony manifests itself, either spontaneously or in consequence of an improper diet.—[*North Western Med. and Surg. Journal.*

Milk from Spayed Cows. By J. U. HECKERMAN, Tiffin City, Ohio.

Except bread alone, there is perhaps no article that enters so largely into the consumption of man as that of milk. As food and drink, it is extensively consumed by the adult portion of our race, it constitutes the exclusive nourishment of nine tenths of all children under twelve months, and forms the chief diet of the remaining one tenth.

The chemical and medical properties of milk have long been made the subject of scientific investigation, and long has the writer in vain looked for something from the pen of a senior observer on the point to which he now wishes to direct attention.

It has ever been a desideratum in the rearing of children who are denied the breast of a mother or nurse, to procure milk

from an animal in which it approaches nearest to that of the human female, and which shall uniformly have the same constituent properties.

In looking over the tables which are given of the constituents of milk, we seldom meet two authors who agree in their observations; indeed so great are the discrepancies, that they only serve to confound us in confusion. This circumstance can be accounted for by the different animals experimented upon, the season of the year, the character of the food afforded and the period of pregnancy or non-pregnancy of the animals at the time of the experiments. Taking the cow, we find that exercise and food, among other things, greatly affect the quality of the milk. The milk of cows kept in the byre contains a larger amount of butyrine than is afforded by animals running at large, while the milk of the latter abounds more in caseine. So great, indeed is the influence of food upon the secretions, that when cows are fed upon bitter or strong smelling grass or herbs, the taste and smell of such grass is imparted to the milk.

Milk, we have already said, forms the chief diet of that unfortunate class of infants, who are reared by dry nursing, and it is estimated that three fourths of these die; indeed, it has been said that, in London, this mortality amounts to seven eighths of the whole number. Be this as it may, we do know the mortality to be very great, sufficiently so at least to demand the earnest attention of every physician.

Standard authors direct children who are thus reared, or who have been early weaned from the breast, to be supported on milk largely diluted by water, and sugar, without, however, any reference to the condition of the animal from which the milk is derived. This we hold to be a serious defect, to be especially so considered, when the remedy is at hand, yet seldom or never used, for lack of information upon the subject.

Lasaigne found that the milk of cows far advanced in pregnancy, contains neither caseine, sugar of milk or lactic acid, but abounded in albumen and uncombined soda; while from the same animal shortly after parturition, the three first named substances were found, and albumen was entirely absent.

It is now the received opinion, that upon the accession of pregnancy a woman should no longer furnish nourishment to a former child, and that such continuance proves detrimental to the health of both parties. These views are confirmed by experience, and by the habits of inferior animals.

If the milk of a pregnant woman afford improper nutriment to a child, surely the same fluid from a cow, in like condition, cannot be proper. Remembering, then, that cows, on the

average, are pregnant three fourths of the whole year, the inference must be that the milk ordinarily derived from these animals is not of a proper character to constitute the diet of infants.

With a view to remedy this universally-existing evil, I would suggest to the profession the propriety of having milk cows spayed, in order to procure milk of a uniform consistency. The act of spaying is performed with facility, and is unattended with danger, the only precaution necessary being, that no food be given for twelve to eighteen hours, and the milk drawn immediately before the operation; the animal becomes kindly disposed, is easily kept, will yield better and a larger amount of milk in a given time, and is with great ease brought into a marketable condition.

The steps of the operation upon the cow are the same as upon the calf or the sow, except that it is important to place her upon the right side, unless the operator be left handed. The best time for operating is about four weeks after parturition, as the future amount of milk will depend upon the quantity given at the time of the operation. For some weeks after, the secretion of milk will be small, but will gradually increase until the amount previously given is furnished, which we have known continue without interruption (of course less in winter than in summer) for the space of ten years.

It is not expected that every father can be circumstanced to keep a cow for the accomodation of his child; but if physicians were to direct the attention of those who do keep cows, to the above facts, it would be found advantageous to keep the spayed instead of the ordinary animal, and the proprietors of milk-furnishing dairies would readily furnish the supply, if the demand was made. The fact above briefly stated, we think of sufficient importance to claim the attention of every medical practitioner, as furnishing him the means of preventing much suffering on the part of advancing infancy, and saving the domestic idol in the circles of many grateful friends.—[*West. Lancet.*

On Dr. WEHN's Method of Turning. By J. S. UNZICKER, M.D., of Cincinnati.

Some years ago I gave a translation of Dr. Wehn's method of turning, in the *Western Lancet*. It differs from the old way of turning.

1st. By placing the patient on her knees and elbows, until one foot is brought down.

2d. By tying the umbilical cord before it is compressed by the head, and deliver afterwards.

This way of turning is undoubtedly more safe to the child, less painful to the mother, and easier to the operator than the old plan. Of this I am now so well satisfied, that I should consider myself guilty of malpractice, were I to turn again according to the plan as laid down by the books.

I have turned thirteen cases within the last three years, a few of which I will here recite :

CASE I. Mrs. A., age 35. At my arrival, the midwife informed me that the patient had been in labor 36 hours, and that about 24 hours ago, the liquor amnii had escaped, and that her pains had been very severe all this time, but that the child would not come down. After a careful examination I found the left shoulder presenting, and prepared for turning by placing the woman on her knees and elbows, when the pains immediately abated. I had no difficulty in finding the feet, but found it very difficult to turn, on account of the tonic contraction of the uterus around the child. By careful manipulation, I at last succeeded in bringing down one foot. I then placed the patient on her back, when the pains immediately returned, bringing down the breech. Then reaching up with my left index finger and gently bringing down the umbilical cord, which was immediately tied, and the head was born ten minutes after. The child is now living, a fine boy two years old.

CASE II. Mrs. D., age 23. Found right arm and cord presenting. Liquor amnii had escaped a few minutes before my arrival. Finding the cord yet pulsating, I prepared to turn, but fearing that the cord might get braced, I ligated it immediately, then bringing down one foot, and delivered the child alive.

CASE III. Mrs. R., age 33, with narrow pelvis. This person I had delivered twice before unsuccessfully. The first child was born dead, after a severe and tedious labor of 36 hours. The second child I delivered with the forceps, but also dead. When I was called the third time to deliver this person, I determined to try turning, before the patient was debilitated by the severe pains which she had always to suffer before. As soon, therefore, as the os uteri was sufficiently dilated, I turned without difficulty, tied the cord as soon as I could reach it, and delivered the head with the forceps. The child is living and doing well.

CASE IV. Mrs. G., age 26, of delicate constitution. Had been in labor 18 hours. Pains very feeble. Breech presentation. Her midwife had given two doses of *secalæ cornutum*, which had no other effect than producing nausea. I then prescribed

R. Pulv. Rad. Colchici, . . gr. x. }
 Elaeosacchar. Cinnamon, . gr. xv. } M. in 3 part. Divide.

One of these powders was given every fifteen minutes, when the pains increased, and a living child was born, the umbilical cord having been tied like in the previous cases.

These facts but too clearly prove, (the old theory notwith-

standing,) that the umbilical cord can be successfully tied, before respiration is established. Dr. Wehn's theory regarding it, I have not been able to obtain; but think, myself, that the success of his method may be explained in this way:—As the head enters the pelvis, the cord is but partially compressed, and the circulation of venous blood in the umbilical arteries becomes checked, while the arterial blood through the umbilical vein, continues to be forced towards the child, the brain thereby becoming congested, and the child dies of apoplexy. But if the circulation is entirely cut off by ligating the cord before the head presses upon it, the equilibrium of the brain will be retained, and no such consequences follow.—[*Ibid.*]

Common Salt in Intermittent Fever.

We find in the New York Journal of Medicine a report by Dr. J. C. Huchison of 22 cases of Intermittent fever, treated with Chloride of Sodium. The following extracts will show the result:

RECAPITULATION.

Age.—9 were under ten years of age, 6 between twelve and twenty, 4 between twenty and forty, and 1 at forty.

Sex.—7 were males, 12 females, and 1, sex not known.

Race.—16 were white, and 4 black.

Proportion of Cases cured, benefited, &c.—Of the 22 cases reported in 12, or 54.5 per cent., viz., Nos. 1, 3, 6, 7, 8, 12, 14, 16, 17, 19, 20, 21, the paroxysms were immediately suspended. Nos. 12, 20, 21, occurred in the same patient.

In 3 of the cases, or 13.6 per cent., viz., 5, 9, 18, one paroxysm only occurred after the remedy was commenced. It was completely successful, therefore, in 15 cases, 68.2 per cent. In cases 2, 11, 22, the paroxysms were postponed or moderated. No. 11, it will be remembered, vomited after each dose, so that the salt was not returned in sufficient quantity to have produced any marked anti-periodic effect. For Nos. 2, 4, 13, and 15, the remedy was not prescribed a second time, the patients objecting; an increased dose might have arrested the disease. Case 4 did not take all that was prescribed. In one case only, (No. 10,) after fair trial, was there no obvious good effect from the remedy.

Permanency of the Cures.—In three of the patients only, for reasons which have been elsewhere stated, was I enabled to ascertain with any degree of accuracy the permanency of the cures. Cases 12, 20, 21, which occurred in the same patient, had longer intervals of immunity from the disease each time

when checked by the salt, than when quinia had effected the same purpose; and when last heard from, five months had elapsed without a return of the malady. It was said of No. 3, that the disorder did not return so soon as it had previously done when checked by quinia; and of No. 6, it will be remembered, that the patient had not relapsed twelve months after the paroxysms had been checked by nine drachms of the salt, although they had previously returned quite frequently after the use of quinia. So far as the evidence goes, therefore, (which, however, is too limited for a general conclusion,) it indicates the superiority of the chloride of sodium over the usual remedies in the permanency of the cures effected by it. And here we should not lose sight of the favorable influence that *may* have been exerted by the quinia before the salt was prescribed.

The difficulty of effecting positive cures of intermittent fever by any remedy or course of treatment, however rigidly pursued, is very great, and sometimes impossible, even though prophylactics be continually used, as long as the individual remains exposed to the cause which developed it. The writer can here speak emphatically, because he has, on two different occasions, been compelled to "fly his country," in order to get rid of this harassing pest. In a number of cases, and among others now distinctly remembered are No. 6 and 7 detailed above, the paroxysms *would* recur every two or three weeks, notwithstanding quinia with Vallet's mass and other remedies to relieve the disordered viscera, including counter-irritation over them, were diligently plied.

Duration of the disease, and general health of the patients.—

In a large proportion of the patients the disease had existed a very long time. Of most of them it is noted, that they had been its victims from six to twelve months. By this it is not to be understood that the disorder then commenced *de novo*, but that it had recurred more regularly and with shorter intervals during that period than previously; for many of them had been its victims for a much longer time, and indeed a few could scarcely remember any period of their lives when they were not from time to time subject to the disease. In four cases (11, 13, 16, 17), the patients never had the disorder before; and in most of them (all but the very recent ones), there was of course more or less impairment of the general health, with visceral obstructions.

Dose and Mode of Administration.—The quantity given varied from eight to twelve drachms during the apyrexia. At first, eight drachms were given, but the amount was subsequently increased to nine, ten, and even twelve drachms in one

instance, with obvious benefit. Children required somewhat larger proportional doses than adults.

Mucilage of elm was selected as the vehicle, on account of its convenience, and because it sufficiently disguised the remedy, which was deemed a matter of importance; for it would have lost much of its efficacy, or have been repudiated altogether, had the patients known they were taking simply common salt; as it is well known to physicians that the influence of the mind upon this disease is very considerable. The following was the formula used:

R. Chloridi sodii, . . . ʒiij.
 Ulmi pulv. . . . ʒiij.
 Aq. bullientis, . . . fʒviii.

Infuse two hours and strain. This forms a saturated solution. Dose, a table-spoonful every two, three, or four hours, so that five or six doses may be taken during the apyrexia. It was not deemed necessary to precede its employment by evacuates, because the patients had recently used such remedies during their former attacks; and moreover, I preferred to use the salt alone, because its real value could thus be better determined. When it is necessary to precede the use of the salt as an anti-periodic, by emetics or cathartics, perhaps there is nothing better for the purpose, in ordinary cases, than the same remedy administered in emetic doses, which will usually produce also moderate catharsis.

Disturbing Effects.—In most of the cases the remedy was well tolerated by the stomach, nausea or vomiting having occurred in but four (3, 11, 14, 15). Four cases also (2, 3, 15, 17), had moderate alvine evacuations, unattended with pain. There was considerable thirst in every case; no other unpleasant effects. When given in the above manner (dissolving it in as small a quantity of water as possible), it is less likely to disturb the stomach, than the same or even a less amount would in a larger proportion of the solvent. The taste was objected to by some, whilst others disliked it much less than quinia.

Conclusions.—From our experience of the anti-periodic virtues of chloride of sodium as detailed above, we think the following conclusions may be legitimately deduced:

I. Although inferior to cinchona and its preparations, it yet forms a *very good substitute* for them in intermittent fever, having failed, as we have elsewhere seen, to produce a speedy suspension of the paroxysms in 31.8 per cent. of the cases only: in a majority of cases, therefore, it may be substituted for quinia.

II. It may be used instead of, and indeed *preferably* to quinia, first, in cases not unfrequently met with, where the latter reme-

dy is forbidden by the very unpleasant nervous and cerebral symptoms it produces, (delirium, tinnitus aurium, cephalalgia, faintness, &c.,) an example of which I have recently seen in the New York hospital, when sulph. copper was substituted. Secondly, where quinia, from frequent repetition, has lost its effect in ague. Thirdly, it is commended on the *score of economy*, which is a consideration of importance to the poor especially, who are now in a measure debarred from the use of quinia by its high price. And, fourthly, it is always at hand, whilst quinia sometimes cannot be obtained.

III. It has been found to be *more energetic* in curing ague than any of the vegetable or mineral tonics commonly used for that purpose, excepting bark, and should therefore be preferred to arsenic, which has been ranked by M. Andral, Prof. Wood, and indeed most other authorities, next in value to quinia. And, moreover, I think arsenic should never be used until after quinia and *common salt* have failed to do good, on account of its unpleasant and sometimes disastrous consequences to the general system and stomach, and the increased facilities affords for using the remedy as a toxicological agent.

Sore Legs.

Dr. H. T. PATTERSON publishes in the Medical Examiner (March, 1854), an exposé of Spender's method of treating ulcers of the leg by chalk ointment and bandages. After testifying to the practical value of the work of Spender, "On Ulcerous Diseases of the Leg," he proceeds thus to describe the author's principles and treatment:

"Our author cannot say too much in condemnation of the poultice in these cases. It is astonishing how constantly patients apply to one even yet with their legs enveloped in that irritating abomination, a sour bread-and-milk poultice. By surgeons they are much less used than formerly, but still far too frequently. To ulcers of the leg they should never be applied, except to cleanse them when sloughing. The only poultice I have used for years is the simple paste of ground flaxseed, or 'cake meal,' and boiling water. To this may be added a little Liq. Sodæ Chlorin., to overcome fætor, or powdered charcoal, or yeast, as a corrective to the sore. With regard to the preparation of the edge in very old sores, I do not think that Mr. S., is sufficiently explicit. Mere compression will not answer in very many cases. In some cases there is a mass of unseparated cuticular deposit which, after softening by a poultice, may be gently separated by the handle of

the scalpel. But in others the cutis itself is thickened, callous, and semi-cartilaginous, often inverted and the ulcer burrowing beneath. The only remedy is its removal, without which cicatrization will not commence. This may be effected by the caustic alkali or the knife. Nitrate of silver will not answer, often making no impression whatever on the indurated mass. The scalpel, however, is always preferable, and should be used freely so as to secure a new and healthy edge. This done, the next thing is to procure incrustation, which Mr. S. proposes to effect by his chalk ointment, the main peculiarity of his practice. His object in this ointment is to have a bland, unirritating, impalpable powder, held together by the smallest quantity of unctuous matter that will permit its being spread and otherwise managed. He employs prepared chalk and fresh lard in the proportion of three or even four parts of the former to one of the latter. The formula which he prefers, and which I have generally adopted, is as follows:—

Take of Prepared Chalk,	4 lbs.
Fresh Lard,	1 lb.
Olive Oil,	3 oz.

To the lard and oil, melted together, the chalk should be added gradually, being first rubbed to a fine powder and passed through a sieve. The mass should then be stirred until nearly cold. It may be rendered still smoother by subsequent rubbing in a marble or wedgewood mortar, but this will scarcely be required. It is impossible to prepare the ointment properly by mere trituration without the aid of heat, as I have seen apothecaries attempt. Under all circumstances there will be a slight degree of grittiness, due to the chalk, but not enough to constitute a practical objection. In private practice, however, I have used an ointment prepared with the precipitated carbonate of lime, which is perfectly smooth. The comparative costliness of this substance would be an objection to its adoption in hospital practice, or where, from the size of the sore or the frequency of dressing, the quantity used is very great.

“The ointment is spread, about the thickness of a wafer, upon linen or cotton cloth, and applied over the whole sore, extending some distance beyond its margin. The next step is to apply a tight bandage from the toe to the knee. Mr. S. recommends a roller of calico (muslin) or flannel, two inches wide and six or eight yards long. The flannel he employs only in old and feeble subjects, or where there is much œdema of the limb. The bandage should be applied firmly and smoothly *by the surgeon himself*. No man can possibly apply a bandage properly to his own limb, and very few nurses, even in Hospitals,

will be found competent to this duty. As the success of the treatment depends very much upon the manner in which the bandage is applied, the only safe plan is for the surgeon to attend to it himself. It should be made to embrace the limb closely, and may be drawn as tight as possible. Occasional reverse turns or folds will be necessary, and it should be fastened firmly with two or three circular turns below the knee. Properly applied it will remain for days and even a week or more. The longer the sore is left undisturbed the better. It should not be opened unless there is pain or fœtor, or the discharge is sufficient to soil the dressing offensively. At first, the rapid reduction in the size of the limb, from the absorption of serous effusion and even of more solid adventitious deposit, will cause the bandages to slacken and require their more frequent renewal. In many cases, however, I have changed the dressing only once in a week or ten days, and with the best results. The laced stocking I have used in a few cases, as a substitute for the bandage, but it did not answer my purpose. The patient complained much more of inconvenience, and there was a want of uniform compression about the ankle, where it is particularly needed. The elastic stocking of vulcanized caoutchouc, or *bas contre les varices*, made by Vié, of Paris, and now on sale here, I have employed in several instances with the most satisfactory results. It answers admirably as a preventive of ulcer in varicose limbs, or as a protection after the sore is healed, but it cannot become a substitute for the bandage in the treatment of the sore.

"When this dressing is removed the surface will be found almost universally improved, clean and free from offensive odor. The discharge would seem in a great measure absorbed, and its acrimony neutralized by the chalk. At the same time it will be perceived that a thin layer of chalk has been deposited on the edges of the sore, and sometimes also in patches in the middle. *This must not be disturbed on any account*, as beneath it is forming the tender new cicatrix. Neither must the limb be wiped or washed. If wet with discharge, it may be dried by a soft cloth gently pressed upon it. A new dressing of the ointment should then be laid upon it, and the bandage reapplied as quickly as possible. With each removal of the dressing the crust will be seen to have encroached still farther upon the surface, until it is finally covered. If found to crack and become irregular, its separation may be assisted gently. The applications (especially the bandage) should be continued for some time after the ulcer is entirely cicatrized.

"This treatment I can from extended experience confidently recommend to my professional brethren. It is applicable to

all ulcers of the leg in which a varicose condition of the superficial veins constitutes the element of difficulty and delay in the cure, and these will be found (I am satisfied) to be four-fifths of all the cases that occur. Mr. Spender entirely disregarded the usual distinction of ulcers into the indolent and irritable, treating both alike. Some of the very worst irritable sores I have ever seen have yielded at once to the chalk ointment and compression."

On Galvanism as an Obstetric Agent. BY THOMAS RADFORD, M.D., F.R.C.P. ED., F.R.C.S., Eng., Consulting Physician to the Manchester and Salford Lying-In Hospital, etc., etc.

Having been the *first* to recommend and practically to employ galvanism as an obstetric agent in this country, and having been the first who ever adapted its use to arrest uterine hæmorrhage, I confess I was highly gratified to read the very excellent remarks of Dr. Robert Barnes in *THE LANCET*,* which so fully agree with the observations I had formerly made.

I was first led to its use during and after parturition by the successful treatment of a case of atony of the urinary bladder, which occurred after a difficult labour.—Vide *Provincial Medical and Surgical Journal*, 1844, vol. viii. p. 604.

Those who are unacquainted with my opinions on this subject might conclude from Dr. Barnes's statement—which I am sure he does not mean to be understood—that I have only employed galvanism in cases of "post-partum hæmorrhages." This, however, is not so. In my first case it was employed, during the first, second, and third stages of the labour. I will now briefly state the kind of cases in which it has been successfully employed by me.

1st. In cases of tedious labour arising from uterine inertia.

2nd. In cases of accidental hæmorrhage, either before or after the rupture of the membranes, and especially when exhaustion from loss of blood exists.

3d. In cases of "placenta prævia," in which, the practice of detaching the placenta is adopted, and the vital powers are greatly depressed.

4th. In cases of internal flooding before or during labour.

5th. In cases of post-partum floodings.

6th. In cases of hour-glass or irregular contraction of the uterus.

7th. To originate, *de novo*, uterine action, or in cases in which it is desired to induce premature labour.

* January number, p. 23 28.

8th. In cases of abortion, when the indications show the necessity, or justify the expulsion of the ovum.

9th. In cases of asphyxia in infants.

Galvanism is especially advantageous as a general stimulant in all those cases in which the vital powers are extremely depressed from loss of blood. Its beneficial effects are to be observed in the change of the countenance, restoring an animated expression; in its influence on the heart and arteries; in changing the character of respiration; and its warming influence on the general surface. I have several times observed, in cases in which other powerful stimulants have failed to produce any beneficial effects, the most decided advantage accrue after its application.

I have never observed that the child, in utero, has been injured by its use, which gives it a great advantage over the administration of *secale cornutum*, which, in many cases, is destructive of it. "This drug is liable to great deterioration; its operation is not always certain, its failure depending sometimes, perhaps, on its inert qualities, but frequently on a constitutional idiosyncrasy which resists its powers. There are organic states which forbid its use: when the *os uteri* is undilated or undilatable, the child being still alive, it ought not to be administered. If in such a case it induces powerful tonic contraction of the uterus, it destroys the child. We cannot control or confine its action, and therefore it is totally unsuitable to cases in which we want only a limited effect. Again, if exhaustion is an element in the case, it is wholly inapplicable, as we ought not to adopt any means which tend further to depress the vital powers. The powerful and sanitary influence of galvanism was most decidedly obtained in the preceding case" (referring to a case to which these remarks were appended,) "and the great advantage of this agent is, that its effects may be carried to any degree, from first only exciting the uterus so to contract that its diameters are lessened, and that its tissue comes to be applied to the body of the child. These, however, may be at pleasure increased, so as to accomplish the expulsion of the child and placenta. The gradual changes produced upon the uterine tissue were admirably seen in the foregoing case, and also its great power developed by its continued application—to arrest the discharge, expel the child and the placenta, and leave the organ safe from the occurrence of post-partum flooding."—*Extracted from a case detailed in the proceedings of the local branch of the Provincial Medical and Surgical Association, 1847.*

In the above-named case I used the poles externally, and have before this, and ever since adopted this mode of application.—[*London Lancet.*

Uretroscope.

We recently described an instrument invented by M. Jobert for the purpose of exploring the cavity of the cervix of the uterus. We have now to announce another innovation, which aims at nothing less than the application of the sense of vision to the diagnosis of diseases of the urethra; what with these two improvements, and Helmholtz' speculum for the retina, and other instruments which are no doubt in store for us, few of the internal organs will long remain exempt from our impertinent inspection.

M. Désormeaux's uretroscope was presented to the French Academy on the 29th of November last. In his description of his apparatus, the inventor modestly alludes to the attempts of Ratier and Segalas to solve the problem which he believes that he has mastered, and attributes their want of success to the want of certain optical instruments which have since been invented.

M. Désormeaux overcomes the difficulty of causing a sufficiency of light to traverse a tube of the calibre of the urethra, by employing a mirror with an orifice in its centre, similar to that used by M Léon Foucault for illuminating opaque bodies under the microscope. This mirror is placed upon a prolongation of the axis of a straight catheter or rather canula, adapted for the urethra. A bright light is reflected on this mirror by means of a large reflector, the rays being concentrated by a lens, and it is so inclined as to throw the luminous rays it receives directly into the canula. The observer looks through the orifice in the mirror, and sees the illuminated objects at the extremity of the canula inserted into the urethra.

These are the principles on which the instrument is constructed. The inventor was unwilling to weary the academy by entering into the details of execution, but presented the apparatus itself with drawings illustrative of its application. If these are published we shall take care to have them reproduced for the satisfaction of our readers.

Dr. Désormeaux goes on to mention several cases in which his instrument had been applied. M. Mélier had examined with him a patient affected with stricture about the bulb, and they distinctly saw a transverse septum in part obliterating the canal. At the *hôpital du Midi*, M. Ricord and many visitors had seen the mucous membrane beyond the canula, and had noted its great redness, indicative of chronic inflammation.

If a piece of printed paper be placed at the extremity of the canula, the light being cut off, the letters can be seen easily by the reflected light; the furrows on the epidermis of the

palmer surface of the fingers can be made out with equal facility.

The inventor believes that his instrument will be useful not only as an aid to diagnosis, but as a means of deciding certain doctrinal points, such as the reality of urethral chancre, etc.

Dr. Désormeaux has found that a lateral opening does not interfere sensibly with the illumination obtained by his instrument, and an opening of this sort will allow the passage of instruments. He has passed a fine probe through a very narrow stricture in this way. The other applications for which a way is thus opened are obvious. We may now apply with some certainty to diseased portions of the urethra those local applications which are so useful in inflammations of the vagina and cervix. Uretrotomy will no longer be a cutting in the dark.

The author makes one more remark. In the case of the uretroscope the object itself is seen in a right line. It will be easy however to reflect the *image* of the object laterally by a mirror, as Newton did in one of his telescopes. Do our readers perceive the corollaries of this invention? We are to see into every cavity of the organism into which a straight tube can enter. The stomach and colon are already threatened with invasion. Hereafter a "coloscope" will be as necessary in treating dysentery as a speculum in treating "ulcerations of the neck!"—[*Virginia Med. and Surg. Jour.*

Plaster of Paris in Spasmodic Asthma. By J. P. ROOT, M.D.,
of New Hartford Centre, Ct.

Not having noticed anything in the medical works of the day, touching the use of the above-named article, in the treatment of spasmodic asthma, I am led to believe it is not in general use. In my hands it has proved more effectual than any, or even all other remedial agents, in the treatment of asthma.

Some three years since, I was called to see a severe case of this disease in the person of a young lady of 18. After going through with the articles commonly used in such cases, with but little effect, I accidentally hit upon the use of "plaster of Paris," in mixture, with almost magic-like results. The only thing previous to this, that gave her much relief, was the smoking of stramonium leaves. Since using the plaster, however, she has been constantly improving; in fact, for the last two years or more she has nearly forgotten what formerly alarmed not only herself and friends, but troubled her physicians. I have used this article ever since, with similar results.

About two months since I was called to witness the agony of a little girl of 12 years, lately moved into this vicinity—

more to console her friends than to relieve the sufferer, as they had given up the idea of ever seeing her cured or even made better; for, to use their expression, they had "been to all the doctors, and they didn't do her any good." She had not been in a recumbent position for a week. I immediately commenced the use of my favorite remedy, with results as before.

The mixture should be prepared similar to lime water, and used freely, diluted in water or milk, on each recurrence of the spasm.

I am in the habit of prescribing for my asthmatic patients, cold sponging about the neck and chest every morning, followed by brisk friction. The *modus operandi* of this remedy I leave for others to enlarge upon.—*Boston Med. and Surg. Jour.*

Phrenic Nerve.

The following are Luschka's conclusions respecting this nerve:—

"1. The phrenic is not merely a motor nerve, but a mixed nerve, containing sensory filaments distributed to the pleura, pericardium, and the peritoneum, covering the diaphragm, and on the anterior wall of the belly. It is also distributed to the coronary and suspensory ligaments of the liver.

"2. It brings about a double interchange of fibres between the sympathetic and spinal nerves, since organic nerve fibres go to it from the inferior and occasionally the middle cervical ganglion, and it gives, by its abdominal portion, fibres to the solar plexus.

"3. In the majority of cases, the phrenic arises but from one cervical nerve—the fourth.

"4. The diaphragmatic branches he traces to the tendinous centre, the inferior vena cava, the right auricle, and the liver.

"5. In its course over the pericardium it appears to be endangered in diseases of the pleura and lungs, especially tubercular. Hence, probably, some of the disturbances of respiration in these complaints."—[*Brit. and For. Medico-Chirurg. Review*, from *Schmidt's Jahrbuch*.

Camphor in Erysipelas.

Dr. C. H. Spoerer endeavors to establish camphor as a specific in erysipelas. His extensive experience in the St. Mary's Hospital, in St. Petersburg, has convinced him that this remedy has no less effect in erysipelas, than the preparation of Peruvian bark has in intermittent fever, and not only in all grades of exanthematic erysipelas, but also in phlegmonous and consecutive pseudo erysipelas, after surgical operations and lesions. Gastric or violent cerebral symptoms are by no means contra-indications, according to S. In the latter, he cautions against

abstractions of blood, and internal antiphlogistic remedies. Also, in erysipelas neonatarum, camphor proved beneficial, with a bath of milk or soap-suds at the same time. The same good effect it had in parotitis, which is connected with erysipelas faciei. S. prescribes internally from gr. $\frac{1}{2}$ to 2 grs. every two hours, while externally the parts are occasionally washed with lukewarm water, and covered with linen. In pseudo erysipelas, after lesions and surgical operations, especially in gangrene, also the external application of camphor, vinegar, or spirits of camphor takes place, according to circumstances, with an infus. arnicæ, decoc. cart. quercus, xv. S. derived no benefit from preparations of lead in erysipelas; they proved mostly obnoxious. He denies, according to his observations, that camphor decreases the vitality of the sexual organs.—[*Mediz. Zeitung, Russland's*, and *Ibid.*

The Cholera Fly. By ROBERT KNOX, M. D.

Public attention has been repeatedly called of late to the sudden appearance of vast swarms of flies, coincident as it would seem with the advent of the Asiatic cholera. As the phenomenon is almost equally interesting, whether it be a mere coincidence, or stand in the important relation of cause and effect, I have ventured to place before the public what I have myself observed in respect of the coincidence. In the absence of any true theory of cholera, speculation becomes legitimate.

I resided in Edinburgh when the Asiatic cholera first appeared in Britain. This Eastern plague, for such no doubt it is, started at once from Sunderland, where it first appeared, to the village of Fisherrow, situated on the sea-side, a short distance from Edinburgh, one of the healthiest spots imaginable. The devastation it caused here was very great. All this took place during the finest winter weather I ever witnessed.

Lecturing, at the time, to a very numerous class of medical students, I felt anxious for the results, for it could scarcely be hoped for, that the disease would spare the capital of the country. I dreaded the breaking up of the class. It was rumored also that a meeting had been held by the persons connected with the University, at which the question of closing the session, and recommending the students to repair to their homes, had been mooted.

The course I determined on was as follows:—I urged the students to remain perfectly quiet for the present at least, promising that I should address them in a day or two, especially as to the course most advisable to follow under the then exist-

ing trying circumstances. In the mean time I visited Fisher-row. It was a Sunday morning, the only day on which I could well leave town. In the village all was quiet as death. My brother, who accompanied me, called on a family to whom he was known. A young man half opened the door; he seemed a stranger, had a bewildered look, and spoke in an under-tone, as if afraid to awaken the dead. My brother asked for Mr. T—. "He is dead," was the reply. For Mrs. T—. "She is also dead." For the younger branches of the family; and the reply was, "They are all dead, save one, who is now dying." The plague had swept out the house and left none. I felt for the first time that a plague had entered Europe and Britain, not an ordinary disease, but a desolating plague, and one probably, like its predecessors, beyond all human means to control.

The healthy villages along the high lands of the Marquis of Lothian's estates were next visited: a healthier spot cannot be imagined, but the plague was laying waste three villages, attacking the inmates of detached cottages, and causing general terror. A gentleman who had been my student was surgeon to the district. He was a man of great courage; boldly denying the existence of any peculiarity in the Asiatic cholera, he affirmed it to be no new disease, but merely an aggravated form of the usual autumnal complaint. The local authorities had established a sort of *cordon sanitaire* around the village, to prevent the egress of the inhabitants. They complained of this to me. My advice was to walk straight up to the constables, who would naturally take to their heels. This is the way I always treat the impertinent interference of impertinent government officials, whose aid sought in moments of alarm is sure to end in mischief. Look at Newcastle. A supine, grasping, grovelling, money-getting magistracy suffer buildings to be erected unfit for human habitations; nay, not only permit the erection of these buildings, but profit by them; adopt no measures to abate the most shameful nuisances; a local and general government, in fact, rigorous in exacting the last farthing of the enormous taxation required to support the crown and aristocracy, but reckless and utterly indifferent to the condition of the people, gradually assist in ruining the physical condition of the place. A plague at last comes, and now a stir is made, not to strike at the root of the evil—the institutions, in fact, of the country—but to fasten on the nation a host of government commissioners, tools, officials, to add to the patronage of the crown and the cabinet, at the expense of a profession, never highly esteemed, and now all but despised. To a town abounding in medical men of the highest abilities, competent, if ever

men were, to meet any difficulty, some government officials are sent, or rather invited (for they would not have been sent unless invited), to point out that which the youngest medical man in Newcastle could easily have pointed out. The plague of cholera, and the terror it excites, is artfully connected with the existence of these nuisances, though not in the slightest degree dependent on or connected therewith. But to return. On entering the cottages just alluded to, I found the people in great alarm. They were abandoning the sick and dying. By handling them freely, raising them up, and offering them any assistance in my power, I partly convinced the people that there existed no danger from contagion; but on leaving this village, I explained to my young friend, the surgeon, that there was no use in concealing the *fact from him*—namely, that the plague was in the village, and that we had a disease to combat which had never before been seen in this country.

Having made up my mind as to the circumstances, my advice to my class was very simple—Remain where you are; avoid all excess; dine on a little animal food and a glass of port wine; have no fear; with opium and warmth you may in general arrest any diarrhoea; but should a case of disease originate in the house in which you reside, *leave it on the instant*. I do not recollect of any student having died of the disease.

At the time these sad events were going on, the physicians of the city had each his own theory and his own treatment to propose. Prior to its reaching the capital of Scotland we had at least fifty doctors who pledged themselves to treat it successfully. I urged the authorities to employ the loudest talkers, the largest boasters, not forgetting the sneakers, who, if not called on to come forward, would, when the disease had subsided, show themselves, and declare that had they but been employed the mischief might have been, if not wholly averted, at least greatly mitigated. I remembered that Thucydides said of the plague of Athens: "When it raged in the city the physicians had no remedy for it; but as it was about to disappear many remedies were discovered." As men never change, but simply move in circles, the same occurrence has taken place in Britain many times within my own recollection.

The "Suppression of Nuisances Theory," invented by Dr. MacCulloch, of the Ordnance, and applied by him to the origin of typhus and other fevers, had not then come into vogue. The theory is now fermenting, and may not subside until the country be saddled with a serious expenditure, jobbing and patronage by crown and minister being simply the aim of the parties who now keep up the excitement. I should not be in the least surprised if it ended in the organization of a staff of government

flunkies, whose existence and duties would be tantamount to the destruction of whatever respectability and responsibility still remain in the hands of the medical profession. For this the profession has to thank the corporate bodies with which they have the misfortune to be connected.

Whilst the cholera raged at Fisherrow and along the highlands separating the valley of the Esk from that of the Tyne, but had not yet appeared seriously in Edinburgh, a lady called my attention to a phenomenon she had never observed before. On the window there *stood, dead*, two or three flies of a somewhat peculiar form and color, having yellow stripes on the abdominal region; around them, on the glass, was a circle of white, opaque particles, evidently discharged by the fly; the amount of these whitish particles was such that they could be scraped from off the glass, and collected in a paper like any other fine powder. The appearance was new to me, but, extremely occupied with the duties I owed my class, I took no further notice of the matter, recommending the lady to speak to an esteemed friend, the late Mr. MacGillivray, who knew all about natural history matters. He thought the fly peculiar and strange, and the circumstance of its position in death still stranger, but offered no opinion.

The circumstance being mentioned by the lady to an acquaintance, a bold and firm person, without fear, he said he would test the theory by swallowing some of the powder. He accordingly took about half of the quantity deposited on the glass by one fly at bed-time. From three to eight next morning he suffered from an alarming attack of the cholera, which greatly weakened him for a day or two.

But now the cholera left Edinburgh, and, if I rightly remember, Scotland, and no more was heard of it for some time. No new case had appeared for eighteen months, when the lady called my attention to a "cholera fly," as she was pleased to call these flies which died standing on the windows. I assured her that the disease no longer existed in Scotland; but willing to ascertain the fact, I spoke confidently to the late Dr. John Reid, my most esteemed friend and former student and assistant for several years. His position in the hospital enabled him at the time to know well the disease movement in Edinburgh and its neighborhood, and he informed me that although it was thought not advisable to say much on the subject, two cases of unquestionable *Asiatic cholera* had occurred the day before in Leith, and had proved fatal.

The coincidence of the re-appearance of "the fly" and of cholera took me by surprise. Hitherto the coincidence has never failed. About a week before the appearance of the dis-

ease at Newcastle, I called the attention of some friends in London to the cholera flies which stood dead on the windows; it was easy to foretell its approach. It raged in the north of Europe, and in a few days it fell on Newcastle. I leave the matter in the hands of future observers.

In addition to the phenomenon of dead flies, singly, coinciding with the re-appearance of cholera, public attention has been directed to another phenomenon equally curious; I allude to the vast flights of flies seen to hover over particular towns, in which cholera either has or is about to appear. Respecting this view, the following circumstance came under my own notice; it is the earliest observation perhaps of the kind which has been made in Britain.

During the autumn of the year the cholera attacked the inhabitants of Dumfries, I had repaired to the banks of the Solway, partly for recreation, partly to continue a series of observations on the salmon, commenced long before. My brother accompanied me. On a chill autumn day, with the wind as usual easterly, we examined the banks of the Solway, or mouth of the Annan, easterly, until the ground became troublesome to traverse. At this point my brother became exceedingly unwell, I felt unusually languid, but ascribed the languor and weakness to my old enemy, the east wind. My brother's weakness and illness I could not ascribe to such a cause, for these winds did not affect him. I gave him my arm, and we reached the main road with some difficulty. Here resting for awhile we proceeded, on foot, to Annan, where we had left a horse and gig.

As we neared Annan I remarked, in the extreme distance, seemingly over the town of Dumfries, a vast cloud in motion; it extended from earth to heaven. In one sense it was stationary—that is, it remained on the same place, but every particle of it seemed to be in motion. I called my brother's attention to it, and we agreed that it resembled a cloud of flies.

A secret instinct led me to leave Annan that afternoon, and proceed at once to Lochmaben. The languor and feebleness left us as we receded from the valley of the Solway, and next morning found us in the best health and spirits; but on that day, if my memory be correct, a messenger brought news to Lochmaben that on the previous evening the cholera had rested on the unhappy town of Dumfries, the population of which it decimated.

I leave these observations in the hands of the reader. I myself lean to the theory of M. Schonbein, whom I have the pleasure to call my friend and former student. With a genius peculiarly his own he has offered a new view or theory of

cholera, which no doubt must be familiar to most. It amounts I think to this, "that the absence or rather deficiency of oxygen in the atmosphere coincides with the re-appearance of cholera." If this be not the true theory, it still is a step in the right direction. It does not exclude the "Fly Theory," which I trust will be followed out to some legitimate conclusion—for or against.—[*London Lancet.*

Infusoria in Woman's Milk. By DR. VOGEL.

No general directions can be given as to whether a woman may suckle or not. In every case the question must be determined by an examination of the milk; and here the microscope proves eminently useful. The author found in that milk which produced sickness in the child, and destroyed the health of the mother after prolonged lactation, immediately after its removal from the breast, infusoria similar to those found in the incrustations upon the teeth (*vibrio bacillus*.) Such vibriones are found especially in women who menstruate or suffer from hæmorrhages during this period, the good or bad aspect giving no important indication. The milk has often a fine thick white colour, or is of paler hue; its consistence may be either thick or watery; its re-action is often alkaline, but generally neutral. Under the microscope it exhibits, according to its richness, sometimes but few, at other times many, milk and cream corpuscles; these differ from the corpuscles of healthy milk by their pale yellow colour, their want of metallic lustre, and their speedy decomposition. As regards the infusoria, they are little rod-shaped bodies, dark in the middle, surrounded by a lighter line, but exhibiting neither head nor tail under a magnifying power of 600 diameters; there are, however, feet in great number and of considerable length. The movement of these animalcules was swimming, and occasionally it was very active. Forward movement was worm-like, and an annular structure of four rings was observed. Mostly they twist screw-like, upon their axes. When they swim in a circle, they always move from right to left. The length is $\frac{1}{100}$ mmtr., their breadth four times less. They are best seen when the milk is diluted with water. In ammonia-diluted acids (even the lactic) they die immediately.

Children fed upon milk containing these infusoria, become sooner or later attacked by diarrhœa, and the evacuations are of a green colour. This condition disappears as soon as healthy cow's milk is substituted. The author believes that this effect does not proceed from the infusoria as such, but from the same cause which produces the infusoria, namely, a process of fer-

mentation in the milk itself. The ferment is, according to him, the congested and increased heat in the breasts, connected with the general excitement of the sexual system.

But a fermentation, as Jul. Clarus observes, cannot be present, because the author always found the milk alkaline or neutral, and never sour. Were there fermentation, the evolution of lactic acid would, upon the author's own showing, have immediately destroyed the infusoria.—[*Schmidt's Jahrb.*, and *Ib.*

On Progressive Atrophic Muscular Paralysis. By M. CRUVEILHIER.

We directed the attention of our readers to this newly described form of disease in our April No. for 1851, (p. 244,) and then related the case of a valued professional brother who had been its victim for a number of years. He has but recently died, after a very short illness of (it is said) congestive fever. No post-mortem examination was made in this case; but the following notice of the researches of the indefatigable Cruveilhier, contained in the *British and Foreign Medico-Chirurgical Review*, will serve to throw some light upon the subject.—[*Ed. S. M. & S. Jour.*

M. Aran has described, in the '*Archives Générales*,' a form of muscular paralysis, under the term "progressive muscular atrophy;" and M. Thouvenet has described the same lesion under the title "atrophic muscular paralysis." Since 1848, this form has been familiar to M. Cruveilhier; and in the present memoir various cases of it are related. The first case was that of a lady, aged 40, with general paralysis, more marked in the upper than in the lower extremities, and unaccompanied by lesion of sensation, or alteration of intellect. Death ensued by extension of the paralysis to the diaphragm and laryngeal muscles. A profound lesion of the spinal cord was diagnosed, but after death the nervous centres were found to be perfectly healthy. The true nature of the case was not recognized, and M. Cruveilhier, not content with the term "*névrose*," given to the case by other physicians who witnessed it, accused pathological anatomy of want of power to recognize some lesions of the brain and cord. The second case was that of a man, aged 18, with general paralysis, sensation and the intellectual faculties being unaffected. An affection of the anterior column of the cord was diagnosed, but after death the cord was found perfectly healthy. The muscles were carefully dissected, and were found to be atrophied in two ways—viz., by simple atrophy, and atrophy with fatty degeneration. The state of the nerves was not examined. In the third case there was gradual muscular atrophy and paralysis, with retention of intellect and sensation. In addition to the paralysis there were tremors, or little convulsive shocks, of the muscles of the extremities, as long as the atrophy was

not complete. There was also, occasionally, a kind of general trembling or shivering. Death finally ensued from general bronchitis, and "œdematous pneumonia." Many of the muscles were atrophied and in a state of fatty degeneration, exactly resembling, as M. Cruveilhier remarks, the state of the muscles described by Dr. Meryon in the last volume of the 'Medico-Chirurgical Transactions.' M. Mandl, in drawing the microscopic appearances, produced plates precisely similar to those of Dr. Meryon. The brain was perfectly healthy; so also was the spinal cord and the posterior roots of the nerves. *But the anterior roots, especially in the cervical region, were found to be greatly diminished in size: in fact, atrophied.* This condition was traced till the union of the roots; in the conjoint nerve on the distal side of the ganglion no change could be detected; the trunks forming the brachial plexus, and this plexus itself, were healthy. The nerves running in the thickness of the muscles were, however, atrophied; and this was traced most exquisitely in the tongue, of which there had been perfect paralysis. The lingual (gustatory) nerve was well fed and of proper size, but the hypoglossal (motor) nerve was extremely atrophied; many of its branches seemed to consist of nothing but neurilemma.

M. Duchenne had electrolized this patient, and found that as the paralysis advanced, the muscles became inexcitable.

M. Cruveilhier remarks on these three cases, that the first case showed only paralysis without disease of the nervous centres; the second, more completely examined, exhibited great muscular atrophy and degeneration; while the third, still more carefully dissected, showed, in addition, atrophy of the anterior roots and of the muscular branches of the nerves. He remarks, also, that the clinical history and the morbid anatomy exactly accord. There is conservation of intelligence, and want of disease in the brain; conservation of sensation, and the cord and posterior roots are unaffected; paralysis of motion, and the motor nerves and muscles are atrophied.

But what is the connexion between the atrophy of the muscles and of the nerves? Which is primary and essential?

The coincidence of nervous and muscular atrophy cannot properly be regarded as an exceptional case; nor, in all probability, is it a simple coincidence. Cruveilhier, after referring to the rapidity with which the atrophy occurs; to the great influence of the nerves: and to a case (of Dupuytren's) in which atrophy of one-half of the tongue succeeded compression of the hypo-glossal nerve by a cyst; regards as demonstrated, that the atrophy of the nerves is the primitive lesion and the atrophy of the muscles is consecutive, and a consequence merely of diminution of function.

But what is the cause of the nervous atrophy?

Here observation at present fails, and future clinical experience must solve the problem. M. Cruveilhier believes that he has accomplished one step of progress in showing the implication of the nerves. How the nerves become implicated must now be learned.

EDITORIAL AND MISCELLANY.

BIBLIOGRAPHICAL.

A Treatise on Venereal Diseases. By A. VIDAL (de Cassis), Surgeon of the Venereal Hospital of Paris, &c., &c.—with colored Plates. Translated and Edited by GEO. C. BLACKMAN, M.D., &c. New York: S. S. and W. Wood. 1854. 8vo., pp. 500.

The work of Vidal is a necessary complement to those of Hunter and Ricord issued from the American press within the last twelve months. The writings of these three practitioners constitute as complete a library on Syphilis as can be found upon any other department of medical knowledge. With Hunter, to represent the doctrines of the 18th century, and Ricord, those of his own school, we have also Vidal, who, though not without prepossessions himself, is nevertheless the ablest adversary of the dogmatism of his colleague. Ricord and Vidal may now be properly designated as the great rival authorities of the day upon one of the subjects most interesting to the welfare of the human family. Whoever, therefore, wishes to be thoroughly posted up, should read both.

The treatise before us is remarkably complete, and worthy the distinguished author of the most perfect work extant upon Surgery. The additions by Dr. Blackman are judicious, and contribute much to enhance its value.

A Treatise on the Diseases of the Eye. By W. LAWRENCE, F.R.S., &c., &c.—a new edition. Edited, with numerous additions and 243 illustrations, by ISAAC HAYS, M.D., Surgeon to Wills Hospital, &c., &c. Philadelphia: Blanchard & Lea. 1854. 8vo., pp. 948. (For sale by T. Richards & Son.)

The very high position long occupied by Lawrence's work upon the Eye, as well as that of Dr. Hays, as a sound practitioner of ophthalmic medicine, renders the present combination of the views of both eminently valuable. We know of no work to which we would refer with more confidence: indeed, it is decidedly the best in our language. The publishers are entitled to high commendation for the beautiful style in which they have issued the work, and we take great pleasure in recommending it to the profession.

A Practical Treatise on Inflammation of the Uterus, its cervix and appendages, and on its connexion with Uterine disease. By JAMES HENRY BENNET, M.D., M.R.C.P., &c., &c.—4th American, from the 3d and revised London edition. Philadelphia: Blanchard & Lea. 1853. 8vo., pp. 430. (For sale by McKinnon & Hall.)

The work before us is so generally known to the profession, that

our commendation is not necessary to insure its continued patronage. We must acknowledge that we are among those who regard the views and practice of Dr. Bennet as decidedly tinctured with the ultraism too common with specialists. The judicious observer and practitioner will readily, however, detect these errors of zeal, and find in this book a vast amount of valuable matter and sound practical information.

Elementary Chemistry, theoretical and practical. By GEORGE FOWNES, F.R.S., &c, &c. Edited, with additions, by ROBT. BRIDGES, M.D., Prof. of Chemistry in the Philadelphia Col. of Pharmacy, &c., &c. A new American edition, from the last revised London edition with numerous illustrations on wood. Philadelphia: Blanchard & Lea. 1853. pp. 450. (For sale by McKinne & Hall. Price \$1 25.)

This is one of the most popular text books with medical students, who are good judges of merit. It contains enough of Physics, elementary chemistry, organic chemistry and general principles, to make it peculiarly adapted to their wants.

Homœopathy: its tenets and tendencies, theoretical, theological, and therapeutical. By JAMES Y. SIMPSON, M.D., F.R.S.E., &c., &c. 1st American, from the 3rd Edinburgh edition. Philadelphia: Lindsay & Blakiston. 1854. 8vo., pp. 304. (For sale by Thos. Richards & Son.)

Homœopathy has had its day in Europe, and is now in the ascendant in some of our cities. Like Thompsonianism, it will soon give way to some other delusion; for it is a singular peculiarity of the human mind, that although common sense will repudiate one absurdity, it does not the less remain open to imposition by another. History is valueless if it has not taught us this much. Ever disposed to learn the truth, from whatever source it may originate, we early (as far back as 1830) carefully perused Hahnemann's organon, the fundamental work upon Homœopathy, and became satisfied that the learned author (for *learned* he certainly was) was either grossly deluded, or was endeavoring to practice what he may have deemed "a pious fraud" upon poor human nature, which was suffering the baneful effects of undue faith in therapeutic agents, and consequently of excessive medication. He, perhaps, thought that it would be better for man to be without physic than to abuse it, as was done in and out of the profession. By framing a new system for credulity to fasten upon in lieu of the errors then considered scientifically orthodox, the sagacity of Hahnemann may well have foreseen that even after the downfall of its supremacy, the valuable lesson would have been taught,

that much of the healing art may be left to nature without serious detriment to the cause of health. Whichever view of the author's motive be adopted, we must say that the best antidote of Homœopathy we know, is the perusal of Hahnemann's organon. Like Thompson's Life and narrative, it carries with it its own refutation, and can therefore do no harm to the reader, whilst it may interest him deeply as a specimen illustrative of human nature under the influence of mental delusion, if nothing worse.

Professor Simpson's able exposition of the absurdities of Homœopathy, may serve to open the eyes of those who have placed, and retain, in one of the most important Chairs of the Medical School of Edinburgh, a man weak enough to believe them. Those physicians in our country who have not had access to Hahnemann's writings will do well to procure Prof. Simpson's work. But it is especially desirable to have the book placed in the hands of such non-professional persons as may be inclined to look favorably upon this nonsensical system. By keeping a copy for this purpose, each practitioner will exert more influence in his neighborhood than by personal controversies, in which he may be regarded as an interested witness by those who do not know how to distinguish between the love of truth and the love of lucre.

Prize Essay: On the use and abuse of Alcoholic Liquors in health and disease. By WM. B. CARPENTER, M. D., F.R.S., &c., &c., with a preface by D. F. CONDIE, M. D., &c., &c. Philadelphia: Blanchard & Lea. 1853. 12mo., pp. 178. (For sale by McKinnel & Hall. Price \$1 00.)

A prize of 100 guineas having been offered, in England, for the best essay on the use of alcoholic liquors in health and disease, it was unanimously awarded by the learned adjudicators to the work before us. It is eminently calculated to be useful to both professional and non-professional readers, and ought to be extensively circulated.

On the Etiology, Pathology, and Treatment of Fibro-Bronchitis and Rheumatic Pneumonia. By THOMAS H. BUCKLER, M. D., formerly Physician to the Baltimore Almshouse Infirmary. Philadelphia: Blanchard & Lea. 1854. 8vo, pp. 150. (For sale by T. Richards & Son.)

Although the vast amount of research bestowed upon the diseases of the pulmonary apparatus had induced many to think that this department of pathology was fully understood, Dr. Buckler has opened a new field for observation by the detection of a rheumatic element in an organ hitherto regarded as beyond the limits of its intrusion. It

is true, that the subject had been hinted at by others, but to our author is due the credit of directing attention to it by a distinct monograph. We regret that the limits of this Journal do not allow us room for more than a mere bibliographical notice of Dr. B.'s work—and, although we are not prepared to admit the full force of his conclusions, we earnestly commend it to the attention of the profession, as drawn up in a philosophical and eminently practical manner.

Clinical Report on Chronic Pleurisy, based on an analysis of forty-seven cases. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the University of Buffalo, N. Y., and in the University of Louisville, Ky. Buffalo: Jewett, Thomas & Co. 1853. 8vo., pp. 58.

Clinical Report on Dysentery, based on an analysis of forty-nine cases. With remarks on the causation, pathology, and management of the disease. By AUSTIN FLINT, M. D., &c., &c. Buffalo: Jewett, Thomas & Co. 1853. 8vo, pp. 90. (Both works for sale by H. C. Morton, Louisville, Ky.)

The two works at the head of this notice belong to a class of practical productions, which no man in our country is better qualified to make useful than the learned and industrious author. Prof. Flint is setting a good example to those whose position enables them to see large numbers of cases of similar disease, and to keep careful records of their progress. This is the true method of studying pathology and the value of therapeutic agents. We trust that these reports will be carefully read, and adopted as models by those who may have the ambition to add their mite to American medical literature.

OTHER WORKS RECEIVED.

In addition to the works above noticed, we have received a large number of pamphlets, among which are :

An Essay on the Mechanism and Management of Parturition, in the shoulder presentation—by Wm. M. Boling, M. D., of Alabama.

The Medical Application of Electro-Magnetism—by Samuel B. Smith, Electro-magnetic Therapeutist, and inventor of the direct to-and fro current electro-magnetic machine, New York.

Functional and Sympathetic Affections of the Heart—by John W. Corson, M. D., of New York.

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from November to January, 1854.

The American Journal of Science and Arts—conducted by Professors Silliman, &c. The March No. before us is very superior, and fully sustains the high reputation of the work.

An Address before the association of the Alumni of the University of the city of New York—by C. S. Henry, M. D.

An Address to the Alumni of the University of the city of New York—by Prof J. W. Draper, M. D.

A Lecture, by Jonathan Knight, M. D., introductory to the course of lectures in the Medical institution of Yale College.

Doctors' Commons: an Ethic Address before the District Medical Society for the county of Burlington—by S. W. Butler, M. D.

A reply to the attacks of Dr. Charles Caldwell—by L. P. Yandell.

We understand that a medical periodical has been issued in Atlanta, but we have not received a copy of it.

Medical College of Georgia.—The Commencement exercises in this Institution took place on the first day of March. From the Dean's Report, it appears that there were in attendance upon the course of Lectures just terminated one hundred and fifty-four Students, of whom 111 were from Georgia, 21 from Alabama, 13 from South Carolina, 3 from Florida, 3 from Tennessee, 2 from North Carolina, and 1 from Mississippi. The Degree of Doctor of Medicine was conferred upon the following gentlemen:

P. De L. Baker, of	Alabama.	J. L. Mills, of	S. Carolina.
R. L. Bird,	Georgia.	Samuel McIntosh,	Georgia.
A. F. Bignon,	"	W. F. Maharrey,	Alabama.
W. T. Bailey,	"	W. H. Murray,	Georgia.
Josiah Brown,	Alabama.	T. J. Murph,	"
J. J. Cartledge,	S. Carolina.	Robert Neilson,	Alabama.
O. W. Crowder,	Georgia.	J. W. Osline,	Georgia.
Dennis Collins,	"	C. D. Parmer,	Alabama.
W. E. Collier,	"	E. D. Pitman,	Georgia.
J. B. Dunn,	"	S. F. Pendergrass,	S. Carolina.
J. T. Davenport,	"	A. R. Sheppard,	Alabama.
B. R. Doyle,	"	G. A. Stephens,	Georgia.
A. S. Fowler,	"	Isaac Schatz,	"
C. H. Gorman,	"	W. F. Shelton,	"
D. G. Gardner,	Alabama.	A. A. Trammell,	"
J. R. Godkin,	Georgia.	S. J. Threadgill,	Alabama.
W. B. Hurst,	Alabama.	W. W. Tison,	"
T. O. Heard,	Georgia.	H. B. Tutt,	Georgia.
J. W. Hunter,	Alabama.	D. B. Tabb,	"
T. Y. T. Jameson,	"	A. F. Verdery,	"
B. F. Lindsey,	S. Carolina.	D. D. Westmoreland,	S. Carolina.
J. O. A. Lewis,	Florida.	J. L. Wofford,	"
J. C. Lee,	Georgia.	W. D. Young,	Tennessee.

Dr. Wm. B. Thomason, a graduate of the Med. Col. of Memphis.

Medical College of Savannah.—We learn that the recent Class in this Institution numbered thirty-six, and that the Doctorate was conferred upon the following gentlemen :

John W. Armfield, of S. Carolina.	Richard G. Nunn, of Georgia.
Elisha W. Harral, “	George W. Cleland, “
Joseph J. Hankins, Florida.	Joseph J. West, “

We are informed that Dr. H. V. Wooten has resigned his Professorship in the Medical College of Memphis.

Non-recurrence of Dysentery.—In his clinical Report on Dysentery, Prof. Austin Flint seems inclined to adopt the belief, that persons once affected with Dysentery are not liable to another attack of it. If this can be established, it will be quite a novel fact in the history of this disease.

Meeting of the Medical Society of the State of Georgia.—We are requested, by the Secretary of the Medical Society of the State of Georgia, to state that the next annual meeting will be held in the city of Macon, on the second Wednesday of the present month (12th April). It is to be hoped that the profession will be fully represented.

Dr. Alexander Turnbull.—The last No. of the Charleston Medical Journal administers a merited rebuke to this notorious charlatan, who has been recently duping the good people of our sister city.

Dr. Long's claim of priority in the use of Anæsthesia.—The Transactions of the Med. Soc. of the State of Ga., contain the following action in reference to the claims of Dr. Long :

“ Dr. Dickinson read the following report and resolution of the committee on Dr. Long's claims, which were unanimously adopted :

“ The Committee to whom was referred the claims of Dr. Crawford W. Long, (formerly of Jefferson, Jackson County, Geo., but now of Athens,) on originality in the use of sulphuric ether as an anæsthetic agent—REPORT :

“ That Dr. Long has exhibited to your committee, evidence proving conclusively to us, that, as early as the 30th March, 1842, he successfully used Ether as an Anæsthetic Agent, in removing a tumour from the neck of James M. Venable, of Jefferson. On the 6th of June, 1842, he also used the ether in removing another tumor from the neck of the same person. On the 3d July, 1842, he also used ether successfully as an anæsthetic, in amputating a toe for a negro boy, the property of Mrs. Hemphill, of Jackson County, Geo. On Sept.

9th, 1843, he used the ether in like manner, in the removal of a tumor from the head of Mrs. Mary Vincent, of Jackson County; and on the 8th of January, 1845, he also used it successfully in the amputation of a finger for a negro boy, the property of Ralph Baily, Jr., of the same county. In every case the ether was used by inhalation from a towel or handkerchief. Your committee are unacquainted with any of the witnesses who testify in favor of Dr. Long's use of the article, but after a careful examination of all the certificates and affidavits exhibited to us by Dr. Long, we see no circumstance calculated to cast the slightest suspicions upon their truth and correctness.

"The character of Dr. Long, in the opinion of your committee, is sufficient to shield him from the suspicion of using a witness for a dishonorable purpose. We therefore recommend to the society the adoption of the following resolution:—

"*Resolved*, That it is the opinion of the society that Dr. Crawford W. Long, of Athens, Geo., was the first person who used Sulphuric Ether as an Anæsthetic Agent, in surgical operations; and as an act of justice to Dr. Long, individually, and to the honor of the profession of our own State, we recommend him to present his claims, to priority in the use of this most important agent, to the consideration of the American Medical Association at its next meeting."

Amputation of the Tongue. By M. MAISONNEUVE.—M. Maisonneuve performed an operation upon the tongue of a patient, so remarkable, not only for the results of the operation but in the origin of the malady, as to be well worthy some details. The patient was a distinguished *confrère*, Dr. J., member of the Imperial Academy of Medicine of Paris, and President of the Committee of Vaccination. In the exercise of his functions on the committee of vaccination, he was in the habit of handling large numbers of small glass tubes containing the vaccine liquid in their ends. He often held these for a moment in his mouth, and they had several times caused slight piqûres on his tongue, followed by enlargement. These generally disappeared at the end of several days; but at length an induration was established of a grave character. To remove the induration the doctor employed first the nitrate of silver, then the acid nitrate of mercury; but this medication, far from arresting the progress of the malady, only aggravated it; epidermic plates developed themselves over the entire surface of the tongue, and later, a deep ulceration invaded the centre of this organ. Adopting the advice of some medical friends, he submitted to an energetic cauterization of the part with the hot iron; but this also only served to give the disease new activity: all the anterior part of the tongue, as far as the calciform papillæ, a distance of eight centimètres, became the seat of an induration, while the central ulcer continued to make rapid progress. To these symptoms were soon added lancinating pains, which left to the patient no rest. By the advice of M. Ricord, he took the iodide of potassium: but, notwithstanding this treatment, the malady progressed from day to day, and the tongue, now enormously tumefied, obstructed the buccal cavity,

and the saliva flowed continuously. Speech had become impossible, and the patient's diet was limited to liquid substances. All rational treatment having failed to arrest the disease, he sought M. Maisonneuve's services. Amputation was immediately proposed, and accepted as the only resource. The patient was submitted to chloroform. M. Maisonneuve then made an incision through the soft parts in the median line from the edge of the inferior lip down to the chin, passed a chain saw around the inferior maxillary bone, and made a section of it. The section of the chin was then drawn apart, which enabled the surgeon to seize the tongue and draw it well out of the mouth. By a rapid dissection, the diseased organ was separated from the healthy parts, at a point beyond the anterior half, an extent of eight centimètres—a little over three inches. The sublingual gland was sacrificed; ligatures were applied to the important vessels, and no hemorrhage followed. After the operation, the branches of the separated jaw were brought into apposition, and secured by threads passed around the teeth. The ligatures placed on the vessels were brought out, under the edge of the jaw, at the lower angle of the wound; and the borders of the division were united by the twisted suture. Notwithstanding the extreme gravity of this operation, no unpleasant results followed. The external parts cicatrized by first intention, the bones consolidated, the enormous loss of substance filled up rapidly, and what is remarkable, *the patient has recovered his speech*, as well as the power of seizing and masticating his food! The anatomical examination demonstrated that the disease belonged to the class of epithelial cancrs, which permits the hope that it will not be re-produced.—[*N. Y. Medical Times*.

Existence of Syphilis in France in the First Century of the Christian Era.—M. Becquerel communicated to the Medical Society of the Hospitals of Paris the inductions of an antiquary of the Côte-d'Or, who, in the ruins of a temple situated near the source of the Seine, where it was the custom to take baths, met with a number of inscriptions, *ex-voto*, attesting the cure of different diseases of the genito-urinary apparatus by the use of the waters. These *ex-voto* were lithographed, and they were seen to record examples of tumours of the scrotum, of buboes, of destruction of the penis, and of other alterations which might be referred to syphilis. If these conclusions be correct, it establishes the fact of the existence of syphilis in the thirtieth year of the Christian era. A commission consisting of MM. Legendre, Requin, Becquerel, and Gillette, was appointed to examine the evidence.—[*L'Union. London Lancet*.

Spontaneous Evolution. By J. JONES, Esq., Llanfair, Montgomeryshire.—The following, I presume, somewhat extraordinary case occurred to me a few days ago:—

A female, aged forty-three, the mother of five children, was taken in labour of her sixth. It was a footling presentation, both feet being low in the vagina, but the uterine contractions being almost *nil*, and

the os uteri amply dilated, I did not hesitate to administer strong doses of ergot. Having entrusted the nurse to administer the ergot according to my directions, I left the apartment, but was summoned back in about three-quarters of an hour, when, to my astonishment, I found the feet and head had exchanged positions. It was now a natural presentation, and the child was born in a few minutes after the ergot had produced sufficient uterine contraction. The infant was small, otherwise it is improbable that the contractions of the womb could have effected such a change in its position.

P. S.—The child is alive.—[*London Lancet*.]

Silk instead of Sponge for Laryngeal Probangs. By J. H. B.—Having had occasion to use topical remedies within my own vocal organs, I was surprised at the apparent harshness of the finest sponge I could procure, and was induced to try a ball of silk floss or ravelings, well fastened by sewing through-and-through loosely. It holds sufficient of any solution, and does not produce as much involuntary contraction as a sponge; hence it can be passed through the “rima glottidis” in most patients, in the first or second application to the throat, whereas a sponge often requires repeated trials, and is more painful than is necessary.—[*Peninsular Journal of Medicine*.]

Early Operation for Hare-Lip.—Andrew Nolan records a case of operation for single hare lip on an infant six hours after birth. The child did not seem to suffer much after the operation was complete, and took drink, apparently without suffering, next day. The lower needle was removed in sixty hours, and the upper in seventy-two. Union was perfect.—[*Dub. Med. Press*.]

Recipes for Cologne Water, from Redwood Gray's supplement.

R Oil of Neroli	3ij	R Oil of Bergamot	3iij
Oil of Orange Peel	3iiss	Oil of Lemons	3ij
Oil of Citron	3j	Oil of Lavender	3iiiss
Oil of Bergamot	3ij	Oil of Neroli	3iiss
Oil of Lavender		Oil of Origanum	3ij
Oil of Rosemary aa	3ss	Oil of Rosemary	3j
Oil of Cinnamon	3j	Essence of Vanilla	3ij
Cardamoms, powdered		Musk	gr. x
Balsam Peru aa	3ij	Rectified Spirit	Oxiii
Rectified Spirit	℞. vii	Rose Water	Oij
Macerate ten days, then distill		Orange Flower Water	Oj
six pounds with a gentle heat.—		Mix the oils; dissolve them in ten pints of the spirit; then add the musk, and finally the waters, previously mixed with the remainder of the spirit, and after standing two weeks' filter.—[<i>Am. Jour. Pharm.</i>	
<i>Pharm. Badensia</i> , 1841.			

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[No. 5

ORIGINAL AND ECLECTIC.

ARTICLE XIV.

Remarks upon some of the Diseases dependent upon Spinal Irritation. By AUGUSTUS F. ATTAWAY, of Madison Co., Ga.

There is, probably, nothing to which the attention of the medical profession is oftener called than to Spinal Irritation, and those diseases consequent upon it. Upon this occasion, I have neither space nor time to treat of all the affections developed within the spinal column, nor to theorise as to *how* these are produced. This would indeed require a volume; but my object, here, is only to speak briefly of some of the diseases which I believe depend upon spinal irritation, and which manifest themselves in organs distant from the seat of disease. In doing this, I shall, therefore, only mention some of the diseases, the most prominent characteristics of which are well known. And, first, as a disease dependent upon spinal irritation, I will mention Intermittent Fever: this is so common in all our miasmatic districts, that its phenomena are familiar to all. This disease is generally ushered in by a chill or rigor, followed by a febrile reaction—these passing off, a third or sweating stage ensues, and this is followed by a complete intermission of varied duration. These fevers are named in reference to the length of the interval. The most common are the Quotidian, Tertian and Quartan. There are others of less frequent occurrence, viz., Double Tertian, Double Quartan, Quintan and Sextan.

The familiarity with the symptoms, course, and treatment of these (even among the unlearned,) has doubtless caused many to whose care their treatment is consigned, to overlook the true pathology of these diseases; and hence it is, that we so frequently see the paroxysms return after having been, apparently, arrested. In the treatment of this disease, I do not think we should rely *wholly* upon the great specific quinine, but should turn our attention *directly* to the location of the disease, which will be found to exist in the spinal column. There we have pointed out to us important indications; upon pressure the vertebræ are found to be sensitive and tender, and if this be relieved we have much greater probability of effecting a permanent cure. And this relief is accomplished by revulsives, sinapisms and blisters, applied over the tender region of the spine.

Intermittent and remittent fevers are so closely allied to, and connected with each other, that their cause and pathology *must* be the same. So, if intermittent fever is dependent upon spinal irritation, so also must be remittent fever. I consider that both these depend upon a diseased condition of the spinal marrow, produced by marsh miasma. The premonitory symptoms of each are about the same: indeed, so similar are they, that in many instances we are scarcely able to discriminate between them. Both these varieties of fever are preceded by languor and disquietude. Remittent fever, also, is often ushered in by a chill, followed by high febrile reaction; the greatest difference being that the exacerbation is of longer duration than in intermittent fever. In remittent fever the paroxysms are followed by a remission only, instead of a complete intermission, as is the case in the other variety of fever mentioned above. Seeing they are so analogous in their symptoms, we are forced to the conclusion that both are dependent upon the same cause; and hence I think we may rationally determine that the same general treatment is applicable to both. This, as before stated, should be anti-periodics and revulsives. Quinine should be administered in doses proportionate to the violence of the preceding paroxysm. This course should be promptly and perseveringly pursued; for if this disease be treated upon the expectant plan, and thus left to run its course, it almost invariably proves fatal. I will not omit to mention, that in all these cases

the spinal column should be examined with the greatest scrutiny, and if, upon investigation, we find it affected, (which will appear from its sensitiveness upon pressure,) we should be prompt in our local treatment, which should consist as before, of revulsives, sinapisms, blisters, and local blood-letting. This I deem of great importance; for in the treatment of remittent and intermittent fevers, when we have relieved the spinal irritation, the greater part of the work is accomplished. Phlebotomy, I think, should only be resorted to in rare cases, such as those in which congestion supervenes.

In the treatment of the foregoing diseases, my success has been decidedly greater in effecting permanent cures, when I directed due attention to the nervous centres, than otherwise; and I now feel fully authorized in going to the spinal marrow for the true pathology of those periodic fevers produced by marsh miasma.

In miasmatic districts, we are frequently called to patients suffering almost insupportably with colic, or cramp of the stomach and bowels. The most common treatment in these cases is the administration of opiates, anti-spasmodics, cathartics, &c., and yet, when these alone are administered, it is frequently the case that we have repeated calls to the same patient, and it sometimes happens that we can never effect permanent relief until we resort to the revulsive plan of treatment. In these cases we seldom fail upon examination, to find some of the vertebræ tender, upon removing which by sinapisms or blisters, we have little difficulty in accomplishing a permanent cure.

Hepatitis is another variety of disease, which has its seat, I think, in the great nervous centre. This variety of phlegmasia can only be successfully treated, I am persuaded, by revulsives. The mode of administration has been mentioned before.

Rheumatism is another disease frequently treated without entire success, in consequence of overlooking the spinal column and nervous centre. I have seen several cases of this disorder, characterized by all the common symptoms of rheumatism, resisting all other treatment, finally cured, as if by magic by putting the patient upon a quinine and revulsive course of treatment.

Pleurisy is another disease caused frequently, I think, by spinal irritation, or, at least greatly increased by it. This, perhaps,

the most violent of all internal inflammations, in the active form, is known by acute lancinating pain in one side of the chest, (increased by inspiration, coughing, and pressure,) dyspnoea, short and frequent inspiration, dry cough with little expectoration, and pain upon lying on the affected side. I have seen cases with all the above symptoms of pleurisy, and apparently uncontrollable, speedily relieved by proper applications to the spinal column. I think, therefore, I may with propriety consider that this affection is consequent also upon spinal irritation. There are many other diseases, which I think I could appropriately include in the class of which I have been treating. In conclusion, I would only remark, that I think it always of the last importance in the treatment of disease, especially in malarious sections of country, ever to bear in mind the necessity of devoting due attention to the nervous centres, and particularly to the spinal marrow, as it is so liable to irritation, and this irritation so productive of disease. This should not seem strange when we consider how intimately connected the spinal marrow is with many, indeed all, of the most important organs in man—and that upon its normal condition depends the proper performance of many of their most important functions.

ARTICLE XV.

Remarks upon the Computation of the Term of Gestation. By C. C. HOWARD, M. D., of Lowndesboro', Alabama.

Dear Sir :—Believing that, by a correct computation of the term of gestation, time on the part of the practitioner may be economised, and much anxious expectation on the part of the female avoided, I am about to submit a few thoughts, which you may dispose of as you think proper.

There are few practitioners, probably, who have not been informed that their services would be wanted on a certain occasion, say a few weeks in the future, and that they are particularly requested to be near home about that time. After the obstetrician has exerted himself to comply with such a request for weeks beyond the time, expecting every day to be called, he may happen to be but a little way in the country, to return in a few hours, when alas! perhaps the first person he sees on his

return is the lady's husband, buoyant with joy on account of the birth of a fine boy. Probably, too, this piece of information is given in language not less expressive than this: 'The long expected has appeared at last.' Long expected! truly; and should the period of this long expectation be calculated by the amount of anxiety that has attended it, we ought not to wonder, if the glad parent should report this fine boy as being possessed of the instruments of mastication and powers of locomotion.

Now, the question very naturally arises, why all this uncertainty, when we are told, and correctly too, that the ordinary term of a gestation is attained in about two hundred and eighty days, and it is customary among medical men to assign the two hundred and eightieth as the day on which the child may be expected to be born. Reckoning from the day of the disappearance of the menstrea, I answer, that what is here said to be customary among medical men, there is reason to suspect is not customary among women. I conclude, from my now limited observation and experience, that women generally make their reckoning, not from the last catamenial period, but rather, from the period of quickening, which cannot but be very uncertain, whether this quickening depends on motion of the fœtus, which is probable, or ascension of the uterus.

Now, since it is certain that the point of time from which medical men compute is the nearest correct, and indeed sufficiently so, ordinarily, it would be well for married females to know this, so that the obstetrician, when directly or indirectly, called on to compute the time, may be able to ascertain the absolutely necessary fact, viz., when did the last sickness terminate. Having this fact for a starting point, it only remains to ascertain the two hundred and eightieth day.

But, not an unimportant question arises here—how shall this be done? Says Professor Meigs—"That experienced practitioner, and most judicious author, Professor Naegelé, of Heidelberg, in his *Lehrbuch der ejeburtshuelfe*, 8vo., 1842, in a remark at the foot of page 82, gives the following method of computing term. Let the woman reckon three months back from the day her menses ceased, and to the said three months, let her add seven days. The day thus found, is the one on

which she ought to expect her confinement. If, for example, she had her courses last on the 10th of June, let her reckon backward three months to March 10th, to which she should add seven days, which would bring the calculation to the 17th of March. This would be the day, to-wit, March 17th, on which the woman ought to expect her lying-in."

Such, he says, is the method of calculation recommended by Dr. Naegelé, and it must be admitted that no man in Europe enjoys a more enviable reputation as a teacher and practitioner in our art. One might feel safe in following his example in the practice of it. Still, I cannot perceive why the seven days should be added to the three months, or, rather, to the whole term, since the professor gives no reason for us to suppose that the ovulum is not both mature and ready for fecundation, as soon as the catamenial flow has ceased, and the genitalia have recovered their fitness for the congress of the sexes. "As I have no reason hitherto to find fault with my own method, I shall continue to compute from the day of cessation; so that, if my patient informs me she saw the last stain on August 27th, I should reckon backwards to July 27th, June 27th, and May 27th, proximo, which day I should indicate as the one on which the labour might be expected to commence, and not June 3d."

It is readily perceived, that there are seven days difference in the computation of these two able professors. By no means an unimportant difference; so much so, that if the rule of the one be correct, that which is laid down by the other ought to be done away. Now, so far as the correctness of the computation is concerned, if we wish to determine the two hundred and eightieth day, with the utmost respect for Professor Meigs, from whose treatise on Obstetrics I have derived as much information, as, perhaps, from any work on the subject, I think we must adopt the method of the Professor of Heidelberg, in so far, as he adds the seven days.

There cannot be found any consecutive nine months of the twelve, which, when added together, will make more than two hundred and seventy-six days; and nine-twelfths of the consecutive nine months, must necessarily include the short month of February. When that month is included, you cannot, possibly, have more than two hundred and seventy-four days; generally,

two hundred and seventy-three, to which, if we add seven, we shall have the number two hundred and eighty. Thus, to make a general rule, I think we should add one week to the nine months, believing that women who have borne children, will usually occupy two hundred and eighty days, in gestation proper.

Whilst, however, I would add one week to the nine months, I would reject the rule laid down by professor N., for the reason, that, it is both an unnatural and somewhat complicated process, to calculate backwards and forwards as is there done. It is only necessary to refer to the quotation of the rule itself, for strong proof, that many women would never make their calculation correctly. It is much easier to compute straight forward. If a woman, for example, sees the last stain on the 10th of June, let her say, 10th of July, 1 month; 10th of August, 2 months; 10th of September, 3 months, &c., to 10th of March, 9 months; to which add seven days, which would bring the calculation to the 17th of March—the day she ought to expect her lying-in.

ARTICLE XVI.

The Effects of Digitalis upon the Genital Organs, and its Use in their Affections By M. BRUGHMANS. (Translated for this Journal, from the *Revue de Thérapeutique Médico-Chirurgicale*, 1st Feb., 1854.)

The action of Digitalis upon the generative apparatus, hitherto but little known, or confounded with its sedative effect upon the general system, has not been sufficiently studied; yet its adaptation and advantages are incalculable. This will appear when we show that it may be used most successfully in all the affections of the genital organs attended with or followed by congestion or inflammation, or consequent upon these conditions. If this be true, its action upon these organs must be eminently antiphlogistic. Any one may satisfy himself upon this point, by taking for five or six days from 35 to 40 centigrammes of the powdered leaves of digitalis. By so doing, the genital organs will be reduced to such a state of hyposthenia, to such a degree of relaxation or flaccidity as to lead one almost to forget their existence. All sense of warmth, of

tension, of congestion ; all disposition to erections, to voluptuous feelings and desires, will have vanished. I have administered it with the greatest advantage for the purpose of subduing such conditions, whether dependent upon peculiarity of temperament, sedentary life, high living, continence or even excessive indulgence in venereal pleasures. In short, digitalis, whether given before or after the states just mentioned, lessens the secretion of semen, and consequently the tendency to congestion, heat and erethism. It matters not how these phenomena are explained; whether they be attributed to the agency of digitalis in lessening the activity of the testicular functions and the consequent repletion of the vesiculæ seminales; or whether they be regarded as induced by a diminished afflux of blood to the genital organs, thus modifying assimilation, secretion, calorification, innervation, &c. What is most important to know is the *action* of digitalis and not its *modus operandi*, that we may appreciate its therapeutic value.

I have already stated that digitalis is efficacious in inflammatory affections of the genital organs ; it is an admirable adjuvant in the treatment of syphilitic disorders, so often attended with inflammatory symptoms, and which it will prevent if early administered. By subduing the heat, congestion, erethism, and irritation attendant upon chancres, gonorrhœa, posthitis, balanitis, &c., digitalis will overcome the elements of inflammatory action, modify the secretions, prevent or dissipate tumefactions of the glans, prepuce, urethra, prostate, testicles and lymphatic glands with a degree of certainty not to be attained by any other remedy. It is therefore especially useful in cases in which phimosis, paraphimosis, cordee, epididymitis or adenitis exists or may be apprehended, as the following facts will prove.

CASE I. I was called to a farmer, affected with blennorrhagia and epididymitis, and whose scrotum was so much distended as to be chafed in several places. Being a married man, he would use no local application which might lead to detection by his wife. Knowing the sedative effects of digitalis upon the organs of generation, I determined to resort to no other anti-phlogistic. I neither bled nor leeches him ; but prescribed low diet, repose, and 40 centigrammes of Digitalis the first day, 35 centigrammes the second day, and 30 centigrammes the third

day.* On the third day the swelling of the epididymis had almost entirely disappeared. The dose was continued at 30 centigrammes, with repose and low diet, and in two days more there was nothing left of the epididymitis; the discharge, which was then very slight, ceased entirely in fifteen days. Thus was this patient cured of a violent epididymitis in five days, and of gonorrhœa in a fortnight.

CASE II. A young man applied to me with six indurated and diphtheritic chancres upon the prepuce, which had become so swollen, indurated and inelastic as to leave scarcely any passage for the urine. Phimosis was complete, and several of the inguinal glands were affected. The case was therefore serious, and it became necessary to combat the local disease, and also to prevent general infection by active mercurial treatment. I therefore ordered $\frac{1}{3}$ grain corrosive sublimate per day, with two spoonfuls of the "Sirop de Cuisinier" (a compound syrup of sarsaparilla—TRANSLATOR.) For the local symptoms, I prescribed 40 centigrammes Digitalis, repose and low diet. In three days the swelling of the prepuce was considerably lessened, its meatus free, and the adenitis (glandular inflammation) diminished. On the seventh day the glands were well, the prepuce could be partially retracted, and nothing remained but the induration of the chancres. In order to overcome this induration, I continued the digitalis in 30 centigramme doses, enjoined repose and light diet, and directed injections with a weak solution of tannin after each micturition. Under the influence of this plan of treatment, the induration gradually disappeared, and in thirty-three days the chancres were all cicatrized, and the prepuce had resumed its normal state. I should observe that the mercurial and syrup were continued for fifty days, the dose of the former being gradually lessened.

CASE III. This was a case of chronic articular Rheumatism. I ordered digitalis in doses of 30 centigrammes, camphorated liniment, &c. The patient then asked if I could not give him

* A gramme is about $15\frac{1}{2}$ grs., Troy; consequently, a centigramme is about one-sixth of a grain, Troy.

The author is not sufficiently explicit as to the mode of administration—Hence we do not know, whether the quantity of digitalis recommended to be taken in a day was subdivided into smaller doses or given all at once. We have usually considered one grain an average dose, which might be repeated more or less frequently during the day according to its effect. It is probable that author's dose was subdivided.—TRANSLATOR.

something for a gleet (*"goutte militaire"*), which had resisted every treatment for two years. I told him to await the effect of the powders just prescribed. In a week his gleet had disappeared and returned no more.

CASE IV. An enlargement of the epididymis of six years' standing, and which had resisted mercurials and iodides, disappeared in fifteen days under the influence of digitalis, repose and light diet. The patient had been married four years and had no children; but his wife has since conceived, which circumstance he attributes to the cure thus effected.

CASE V. A thick and abundant discharge from the urethra of six months duration, attended with an inflammatory stricture at two or three centimetres from the meatus urinarius, disappeared in sixteen days' use of digitalis, after which the flow of urine was as free as it had ever been.

CASE VI. An urethral stricture consequent upon an engorgement of the sub-mucous cellular tissue, of the extent of a centimetre, and situated in the spongy portion of the canal, was removed in four weeks by the same treatment.

CASE VII. A patient affected with chronic blennorrhœa and seminal discharges applied to me. During the last year he has become considerably emaciated; his complexion is sallow; eyes sunken; he has no appetite; and complains of gastralgia, palpitations of the heart, buzzing in the ears, and vertigo, which are frequently induced by attempts at defecation or micturition. In order to establish a diagnosis, I examined the muco-purulent discharge, and found it clear, whitish and viscid. With the microscope I detected spermatic particles in it. On exploring the canal with a sound, the patient suffered so much when this reached its prostatic portion that I was compelled to desist. An examination of the perineum and rectum revealed no tumor. Concluding that there existed an ulceration in the prostatic portion of the urethra, I desired to cauterize it with Fromont's instrument, but yielded the more willingly to the patient's reluctance to submit to another introduction after having suffered so much from the first, inasmuch as I wished to test the efficacy of digitalis. I ordered 30 centigramme doses of digitalis, substantial diet and stimulants. In eight days he was better, and felt comfortable; for three days had had no vertigo; the

palpitations had diminished; the discharge was not so viscid and less copious. In seventeen days the discharge had ceased, and I then reduced the dose of digitalis to 10 centigrammes, and advised its continuance for a fortnight longer in order to make the cure certain. At the end of the fortnight I catheterized him without any pain whatever. His general appearance, his moral and his physical condition, had undergone a complete metamorphosis; his strength and cheerfulness had returned, and he complained of nothing more than a little oppression about the stomach and some nervous excitability.

CASE VIII. A young man annoyed with nocturnal emissions which had resisted the use of cathartics, enemata, cold baths, cinchona, quinia, chalybeates, &c., under the direction of several physicians, applied to me for relief. I prescribed 40 centigrammes digitalis the first day, and advised a light and early supper, notwithstanding the keenness of his appetite. The following day he called upon me and stated that he had no emissions during the preceding night. Prescribed 35 centigrammes; similar effect the next night. He then took 30 centigrammes daily for a fortnight, during which time he had no emissions. Six days after its discontinuance, an emission occurred; on the following day he took 40 centigrammes of digitalis and had no emission that night. This treatment was kept up for two months and the nocturnal emissions ceased entirely. If they recur, they may doubtless be checked in the same way again.

Such are the facts I have deemed it a duty to lay before the profession. They establish beyond doubt that digitalis may be useful in many affections of the genital organs. The patients were all gratified with its action and expressed their surprise at the rapidity with which it dissipated the heat, congestion, erethism, and morbid sensibility of the affected organs. These inconvenient and disagreeable symptoms were subdued in a few days, and their disappearance was soon followed by return to health. Every one knows how it is often difficult to cure the primitive symptoms of syphilis; whether in consequence of the carelessness of the patient in carrying out the prescriptions made, of the violence of the disease, or of the insufficiency of the means empirically used. Digitalis obviates all these difficulties. When its antiphlogistic action upon the genital organs

shall have been well understood and duly appreciated, a considerable check will be given to the use of bougies, caustics and injections—means that require much time, experience and judgment to be advantageously used. In most cases it will of itself suffice for the removal of the inflammations, congestions and ulcerations, both acute and chronic, of the genital apparatus.

It is not my design at present to enumerate all the circumstances in which digitalis may hereafter be found advantageous. I will however suggest its value in surgical operations which require the suppression of erections of the penis. The sympathy between the oculo-palpebral and the genito-urinary mucous membranes may indicate digitalis as a valuable remedy in various forms of ophthalmia. I have not yet tested it in these affections, and I regret not having had the opportunity of doing so in the diseases of the female organs of generation. If it be found to act upon the female as it does upon the male organs, it will be a valuable acquisition.

I may be permitted, in conclusion, to advance an hypothesis. Since digitalis is such a complete hyposthenic with regard to the genital organs, since it modifies and lessens so considerably their functions, might it not, if administered during several days after impure coition, prevent the development of syphilis—and thus become the best prophylactic in this disease? This is a bold proposition, perhaps far fetched and an indication of extravagant confidence in the remedial agent. Be this as it may, I am disposed to express even my hopes in relation to it.

On the Pathology and Treatment of Uterine Catarrh and Internal Metritis. By E. J. TILT, M. D., Senior Physician to the Farringdon General Dispensary and Lying-In Charity, and to the Paddington Free Dispensary for Women and Children.

Before drawing attention to several pathological conditions of the mucous membrane lining the body and neck of the womb, which have hitherto been included by pathologists under the denomination of uterine catarrh and internal metritis, I must be permitted to glance at the present state of uterine pathology.

If we consult the numerous writers on diseases of women previous to 1816, when Recamier showed the advantages to be derived from an ocular examination of the womb, and even

some of the works written since that time, we shall find great space given to leucorrhœal and uterine discharges, to displacements of the womb, and to cancerous affections and ulcerations; but that the various organic lesions of the os uteri, the erosions, exulcerations, ulcers, and other forms of idiopathic inflammation of the neck of the womb, are either not described at all or very imperfectly. It matters not that a speculum uteri has been discovered at Pompeii, nor that Morgagni, in his 14th and 46th epistles, should have stated, that by means of an ivory tube introduced into the vagina, he was enabled to see an ulcer on the neck of the womb, to Recamier will be given the credit of having originated a vast improvement in uterine pathology. By showing the possibility of an ocular examination of the womb, and urging the frequent necessity of doing so, Recamier enabled his disciples to apply to diseases of the womb the recognised sound principles of general pathology; and if we consult the best pathologists of the day, either in France or England, we shall now find the various forms of uterine inflammation more or less carefully studied, while leucorrhœa occupies less and less space.

Pathologists are as much divided abroad as at home respecting the terms by which we should designate idiopathic morbid lesions of the os uteri, which frequently cause leucorrhœal discharges; but I scrupulously adhere to truth in asserting, that in the conviction of the great majority of enlightened practitioners in France, Germany, America, or at home, chronic leucorrhœal discharges generally depend upon organic lesions of the os uteri and its vicinity. My paper does not refer to these lesions, for their pathology and the treatment they require are now well known, having been elaborately treated by many writers. But although lesions of the os uteri are the *most frequent* causes of leucorrhœal discharges and uterine symptoms, these may likewise be caused by various morbid states of the mucous membrane lining the womb. So long as the lesions affect the os uteri, the hand can heal what the eye can see, and the treatment is satisfactory; or if relapses occur, through the patient's negligence or the neglect of constitutional measures on the part of the medical adviser, they can again be cured; but when the lesions exist beyond the field of vision, in the lining membrane of the neck and body of the womb, great uncertainty reigns respecting their diagnosis and treatment: for although during the last few years many French pathologists have written on what they call *uterine catarrh*, when their cases are carefully investigated, it is often evident that they cannot be admitted as samples of simple inflammation of the uterine mucous membrane; for ulceration may exist in the

cavity of the neck of the womb, and remain undetected because unsought for.

Can we wonder after all that there should still be much obscurity in this department of uterine pathology, when, until 1842, most anatomists did not recognise a mucous membrane in the body of the womb, and had but an imperfect knowledge of that which lines its neck. The structure of the mucous membrane of the body of the womb, was first clearly made out by Coste, and we owe to Dr. Tyler Smith the best description of the mucous membrane lining the neck of the womb. In the course of this paper, we shall have to refer to some of the results arrived at by these investigators; I now merely observe that the different anatomical texture of the two membranes permits us to understand why the lesions of *one* are not necessarily transmitted to the *other*, although this often occurs.

Inflammation of the mucous lining membrane of the neck of the womb may be *acute* or *chronic*. In the *acute* form, pus, alone or mixed with mucus or blood, may be seen to ooze out of the os uteri. If it be susceptible of being dilated by the valve of a bivalvular speculum, the mucous membrane may be found very red or ulcerated. Hence two forms of acute inflammation of this membrane; but as they have been well-described, I shall merely observe, that this acute form of inflammation is generally called *uterine catarrh* by French authorities. It was, for instance, in seven cases of this description that Becquerel tried the effects of uterine injections. As I shall hereafter mention, most English pathologists consider the discharge to come as well from the body of the womb as from its neck. Believing this to be an error, we suggest that the term *catarrh* should be reserved for cases of inflammation of the lining membrane of the neck of the womb in which it is but little swollen, attended by a small amount of heat, and by a discharge oftener mucous or sanious than purulent; or, in other words, catarrh is a subacute inflammation, and as this affection never attacks the body of the womb, it would be better to adopt the expression of *cervical catarrh*.

The subacute, or chronic inflammation, of the lining membrane of the neck of the womb, is well worth attention, on account of its frequency, an assertion corroborated by many authorities, as well as by Melier, who was one of the first to notice it in the "Mémoires de l'Académie de Médecine." Burns and Jewell have recognized it as a *subacute affection of the cervix uteri*. Lisfranc and F. Churchill have called it *acute uterine leucorrhœa*, and Dr. Bennett, cervical catarrh. Its long duration and tendency to relapse, and to cause erosion, or

ulceration of the os uteri, renders it still more deserving of your attention. The following cases will exemplify the complaint :—

CASE 1. A year ago a lady was placed under my care by Dr. Stone. She is tall, stout, aged twenty-six, and of a florid complexion, but the pulse is habitually weak. She first menstruated at thirteen, and the function was regularly performed, and with little pain. Married at twenty-one, but never conceived. At twenty-two her feet got very wet at a menstrual period: the flow was not checked, but from that time she became much subject to back pains, and to a constant pain in the left ovarian region. She had a slight brown discharge during the whole intermenstrual period; was nervous; had hysterical symptoms, such as involuntary tears and choking, but no fits. Intercourse was seldom painful, and did not increase the discharge or the usual pains. Menstruation retained its regular type, but was accompanied by a much more abundant flow, more pain, and by hysterical fits. This state of things had lasted two years when I was consulted. There was then considerable pain on making a digital examination, and I found the neck of the womb spotted with numerous ulcerations. These were cured by several applications of nitrate of silver and vaginal injections, with a solution of acetate of lead, but the back and ovarian pains remained unabated, so did the hysterical symptoms. There was no lesion to account for these symptoms; but as on pressing laterally all down the neck of the womb I gave considerable pain, and as the brown discharge continued, though the body of the womb was neither painful nor enlarged, I concluded that the lining membrane of the neck of the womb was subacutely inflamed, and, with the view of substituting a healthy inflammation instead of one of a low type, I painted the inside of the neck of the womb with the solid nitrate of silver. This was followed by much abdominal pain and protracted hysterical fits. A second application, made ten days afterwards, being followed by similar accidents, I resorted to the application of tincture of iodine inside and outside of the neck of the womb. This was done every four or five days for the first three months, and then only once a week, while at the same time the patient took thirty drops of Bullock's syrup of citrate of quinine and iron three times a day. Menstruation continued extremely profuse for the first three months of treatment, being often accompanied by hysterical fits; but the morbid symptoms gradually abated, and the patient has been for the last six months free from all suffering, uterine discharge, and hysterical symptoms.

CASE 2. Mrs. C——, aged twenty-six, of middling stature, delicate complexion, light hair, and with all the characteristics of a lymphatic constitution, consulted me four years ago. She first menstruated at fourteen, and the flow was regular and attended by little pain until about her eighteenth year, when the flow was suddenly checked by remaining several hours in damp clothes. Intense pain was felt in the right ovarian region, and pus is said to have been passed several times by the vagina. When I was called in, the lady suffered from intense back pain, profuse discharge of viscous fluid from the uterus, mild hysterical symptoms, and the os uteri was slightly ulcerated. A few applications of nitrate of silver healed the ulceration, and the patient took sulphate of iron pills and the bitter infusion of gentian. Notwithstanding the healing of the erosions, the symptoms remained about the same, and I found, as in the preceding case, that no pain was felt when the body of the womb was pressed, but a considerable amount when lateral pressure was made to the neck of the womb. The uterine symptoms were alleviated by the application of the solid nitrate of silver to the internal surface of the neck of the womb, and instead of white the discharge became brown. This was checked by seven or eight applications of the tincture of iodine, and the patient experienced no further suffering. A few months back, however, I was again sent for, as there was a fresh attack of uterine pain and brown discharge, which was cured by topical applications of tincture of iodine, by the internal exhibition of steel, and by a sea voyage. In this case also the patient has never conceived. Menstruation remained regular, and there was no flooding.

These cases are given to illustrate, not to substantiate, my practice ; so without detailing others I shall proceed to the remarks they suggest.

Causes.—The principal causes are—imprudences committed during the menstrual epochs ; the excitements of a prurient imagination, which too often lead to masturbation ; the too frequent practice of matrimonial rites ; miscarriages and confinements.

Symptoms.—The presence of the usual uterine symptoms, in absence of all visible lesions. A digital examination is sometimes painful to the os uteri ; at other times not. The same holds good with the application of the speculum, or with matrimonial intercourse ; but pressure applied *laterally to the neck of the womb* gives more or less pain, which is not the case in a healthy state. A glutinous discharge is seen oozing out of a somewhat turgid os uteri, and long threads of it may be removed ; but when uncomplicated by erosions, ulcerations, or

vaginitis, we have not observed that the discharge was frequently abundant. Whether the mucous follicles lining the neck of the womb can be affected by some other lesion, so as to warrant Dr. Tyler Smith's position, that the mucous membrane of the neck of the womb is the most frequent origin of leucorrhœa, remains to be decided by further researches; this opinion having been also held by Boivin and Duges, it demands very careful consideration.

Sometimes the discharge is of a brown colour, as in the cases related; not mucus streaked with blood—not the sero-sanguinolent discharges of the body of the womb, but an intimate mixture of mucus and blood, as in the rusty sputa of pneumonia. This discharge we consider to be very characteristic of subacute inflammation of the mucous lining of the neck of the womb; and on a microscopical examination, it is found to contain globules of blood more or less disformed, and mixed with mucus and epithelial scales. It is very annoying to women, from the manner in which it stains the linen. This discharge may last the whole intermenstrual period, or only during the ten days which follow the flow; and we have found iodine applications of great utility in such cases. Judging from my own practice, I believe that the *viscous* discharge is more frequently met with than the *brown*, which generally accompanies a very mild type of inflammation.

Chomel, in his Clinical Lectures, has drawn attention to cases in which there is a red stain on one of the lips of the os uteri; instead of being sunken, it is slightly raised, of a vivid redness, velvety to the touch, not surrounded by pus, but by the well-known viscous fluid of the neck of the womb. This is no more an ulceration than the port wine stains or erectile spots on the skin, and may be considered an exaggerated development of the bloodvessels of the villi, which in the normal state are covered with cylindrical epithelium, and, when hypertrophied, form a piece of living crimson velvet, which in four instances I have seen lining part of the cavity of the neck, giving rise to the symptoms I have just described. Such lesions predispose to metrorrhagia, and their detection suggests the necessity of active local treatment, as in an exaggerated instance of this lesion which was related by Dr. Forget to the Society of Emulation at Paris. A woman had experienced repeated metrorrhagia: and on being examined, the neck of the womb was found lined with a soft, red, and bleeding substance, elastic, crepitating, and offering most of the characters of erectile tissue. This surface was repeatedly cauterized, and after a few months of treatment, was completely cured. We think that Dr. Kennedy, of Dublin, has described similar appearances under the name

of *doughy* or *boggy* ulcers of the womb. In my four cases, the women had been several years married, and had been sterile. This is in harmony with Chomel's experience.

Prognosis.—Dr. Kennedy has stated that “although the inflammation of the internal surface of the neck of the womb may be borne without great inconvenience for years, still it leads to the serious implication of the sub-mucous tissues, which undergo a change which may be termed *uterine ramollissement*, attended by frequent hæmorrhages, unhealthy, grumous, and muco-purulent discharges.” Now, with due deference to high authority, we think that Dr. Kennedy has described exceptional cases. All mucous membranes may remain chronically inflamed for years, without entailing more serious lesions than were first visible, and in general the mucous membrane lining the neck of the womb may remain subacutely inflamed, without causing anything like *uterine ramollissement*, but it fosters hysterical phenomena, keeps up a vaginal discharge, and causes repeated relapses of erosions, or ulcerations of the neck of the womb. I believe Dr. Tyler Smith's views are correct, and that the inflammatory action of the glandular mass of the neck of the womb, determines the too abundant secretion of its alkaline products, and that, by their presence on the os uteri, accustomed to acid secretions, they cause the rapid shedding of the epithelium, with that destruction of the subjacent villi which warrants the name of erosion or exulceration. Whatever form it assumes, all observers agree that subacute inflammation of the mucous lining of the neck of the womb is a frequent cause of sterility.

Treatment.—Dr. Melier advised the injection of emollient fluids into the cavity of the neck of the womb, but they would be ineffectual to modify the inflammation of the mucous membrane, while their entrance into the cavity of the body of the healthy uterus might be attended by dangerous results. If emollient injections into the cavity of the neck of the womb are objectionable, how much more so must be injections of a solution of nitrate of silver, as used by some French practitioners for what they call *uterine catarrh*. Although the cavities of the healthy body and neck of the womb are separated by a stricture, sufficiently tight to prevent the easy passage of the uterine sound, nothing proves that this stricture could prevent the passage of fluid, and the numerous and fearful accidents which have attended the practice of uterine injections, permit the belief that the stimulating fluids sometimes cause fatal metro-peritonitis, by passing into the healthy fundus uteri, and, perhaps, into the peritoneum through the oviducts. Dr. Bennet states, in his work on Uterine Diseases, page 269, “that

nothing but strong cauterization with acid nitrate of mercury, or the potassa fusa cum calce to the lining membrane of the neck of the womb, can overcome the tenacity of the disease." If this refers to exceptional cases, I commend the practice, but in cases similar to those related, I prefer the tincture of iodine, or the iodide of iron, because it enables us to effect a solid cure, without inducing much pain, or running the chance of the serious accidents which sometime follow caustic applications. After clearing away the uterine mucus I apply the tincture of iodine with a *sable* paint-brush, introducing it as far into the neck of the womb as can be done without using much force. On withdrawing the brush, I paint the vaginal portion of the neck of the womb. This is a mode of practice that I have now used for several years, and I can safely recommend it, as I find that something similar has been recommended by Dr. F. Churchill. A drachm of acetate of lead, in a pint of decoction of poppy-heads, forms the best injection in such cases.

With regard to the crimson elevations on the mucous lining of the neck of the womb, tincture of iodine is of little use. The solid nitrate of silver is the best application, or the acid nitrate of mercury; and it must be borne in mind that this condition is often more difficult to treat than simple ulceration.

With respect to constitutional measures, I shall merely say, that in all chronic uterine affections the practitioner will find a sheet-anchor in the various preparations of iron, and that the syrup of citrate of quinine and iron, or the syrup of iodide of iron, are very good preparations.

The pathology of internal metritis is yet to be written. Hints may be gathered from works on uterine inflammation, on uterine catarrh, on dysmenorrhœa, and on menorrhagia; but all this information must be tested by a considerable number of cases, collected with a severity of diagnosis, unattainable until the recent improvements in uterine pathology. My object is to place before the profession the present state of our information on this point; and if in so doing I only quote from foreign authorities, it is because internal metritis has been overlooked by English writers. Dr. Bennet is, we believe, the only English writer who has treated of this disease; but in noticing it he has ignored the principal documents relating to its history—those derived from the practice of Recamier and his pupils.

Before commenting on the morbid conditions of the mucous membrane lining the body of the womb, I must recall to memory that the researches of Coste, confirmed by many microscopical observers, show that the unimpregnated uterus is lined by a very thick mucous membrane. The skeleton of this mem-

brane is formed by fibro-plastic tissue, and it is completely studded with follicles, which have a vertical direction, and are so closely pressed one against the other, that they appear to constitute the whole of the membrane when observed in the womb of a woman dying during menstruation. These glands are follicles like those which line the mucous membrane of the neck of the womb; but their secretion is less viscid, if not watery. In the body of a healthy womb is found a small quantity of a grey or pink fluid, which is semi-transparent, and contains cylindrical epithelial cells, blood-globules more or less diffused, and fragments of fibrine. The abundance of this glandular apparatus, and the more watery nature of their secretion, allow us to understand the abundant discharge of serous or sero-sanguinolent fluid, which comes from the body of the womb in some of the morbid conditions of its mucous membrane.

With regard to the blood vessels of this mucous membrane, the abundance of their reticulations, which is sometimes shown by a natural injection, and the delicacy of the epithelial membrane which covers them, gives a satisfactory explanation of the frequency of uterine hæmorrhage as a complication of internal metritis. Having thus premised, I may affirm that as we rise from the os uteri to its fundus, disease becomes less and less frequent, and more and more difficult to detect and to cure.

Although the mucous membrane of the body of the womb has been found *acutely* inflamed, intensely red, and covered with pus and false membranes, yet this condition being generally associated with similar changes in the body or neck of the womb, forms a part of acute metritis, of which I do not now intend to treat.

In some cases of dysmenorrhœa and very profuse menstruation, the intense sufferings and the floodings are evidently caused by inflammation of the lining membranes of the womb. In proof of this, I exhibited to the fellows of the London Medical Society the uterus of a young woman who was under the care of Dr. Watson at the Middlesex Hospital, and who died from profuse menstruation. Dr. Watson cannot remember all the details of the case, but he recollects that it was not marked by the symptoms of acute metritis. The morbid specimen is preserved in King's College museum. The mucous membranes of the womb were alone diseased; they seem to have been both acutely inflamed, since both are covered with a thick false membrane. This membrane is not an exfoliation of the mucous membrane; for in one form of dysmenorrhœa the mucous membrane of the body *alone* exfoliates, whereas this false membrane covered both the cavities of the body and the neck, and even covers part of the os uteri; neither can this membrane be considered to be merely

the fibrine of a blood-clot; for on closer examination it will be found to be of a loose texture, and more pointed with red where it lines the body of the womb, pale and denser where it lines the neck. If it were a blood-clot would not its texture be uniform?

If menorrhagia be frequent the opportunities of ascertaining its cause are extremely rare, and this morbid specimen proves that in some of the cases merely described as menorrhagia the flooding is really caused by acute organic lesions hitherto unsuspected.

What is known of internal metritis leads us to consider it as a subacute or chronic inflammation of the mucous membrane lining the body of the womb.

There is a form of dysmenorrhœa characterized by a more than usual amount of suffering, and by the ejection of membranes from the womb. As the exacerbations occur only at the menstrual periods, it is probable they occur under the influence of some unknown ovarian impulse, as Dr. Oldham has contended; but, in many cases of this description, the persistence of uterine symptoms during the intermenstrual periods, shows that the mucous membrane of the body of the womb is permanently diseased.

The researches of Coste and others seem to prove that during pregnancy the mucous membrane increases in thickness, in vascularity, and, if Pouchet's observations are to be relied on, a delicate cast of the mucous membrane is thrown off from the body of the womb at the end of each menstrual epoch, and its fragments pass away in the mucous discharge. Under the combined influence of some *ovarian* influence, and a low type of inflammation, the mucous membrane of the body of the womb *exfoliates*, as it does in pregnancy, and there is cast from the womb a perfectly organized membrane, in which the characteristic glands may be seen, thus differing from the patches of grey, well-organized fibrine, which are sometimes thrown off with great pain during menstruation. The pathology of these cases of dysmenorrhœa is doubtless very obscure, because on such cases post-mortem examinations are extremely rare: but if in some of our hospital museums you compare the womb of women who were affected with the form of dysmenorrhœa, with the womb of women who died during menstruation, you will in general find that when the mucous membrane of the womb was in the habit of exfoliating, its internal cavity was much larger than usual, and the mucous membrane much more injected.

The mucous membrane of the body of the womb is sometimes affected with a variety of subacute inflammation which might be termed *hæmorrhagic*, inasmuch as the sanguineous

discharge by which it is attended constitutes its chief symptom and danger. The following case will illustrate this variety.

Eliza B—, admitted to the Farringdon Dispensary Nov. 21st, 1851; was twenty-three years of age; of middling stature and size; looks delicate, and has been so from childhood. The menstrual function began at fifteen, after three years of continued headache, giddiness, and drowsiness. The flow on its first appearance was very abundant, and returned once again at the regular time. Although the daughter of a major, she brought endless trouble on herself by marrying a workman, by whom she had a child at sixteen and three months, and three more children since then. She always weaned her children at nine months, because she felt weak; but she never menstruated until about twelve months after parturition, and then, in consequence of some fright or domestic altercation, after the appearance of which flow she has always fallen pregnant. She is always delirious after confinements, but makes good recoveries. When first admitted a patient, she was suckling a child four months old, and was suffering from mild hysterical symptoms, which were soon subdued.

On the 28th of April, 1852, she returned with an attack of menorrhagia, which yielded to cold aluminated applications and to the internal exhibition of acetate of lead.

In May there was slight leucorrhœa, burning pain in the back and in the left ovarian region; the patient felt a swelling there—I could not; but on making a digital examination, the body and neck of the womb were uniformly tender, but no lesion could be seen in the neck of the womb. I ordered alum injections and mercurial inunctions to the ovarian region; sedatives, opiate enemata; and the bowels were kept open by small quantities of sulphur and borax.

June 16th.—The same symptoms persisted; the neck of the womb was more congested. I painted it internally with nitrate of silver, in hopes of modifying some morbid condition which might remain unseen high up in the cavity of the neck. This was repeated every week several times without ill effects.

July 14th.—Flooding returned, and resisted cold applications and the injection of a solution of acetate of lead, as well as its internal exhibition. It was at last checked by ten grains of ergot of rye three times a day; when no blood came away, a serous fluid did; but this did not come from the vagina—that was *seen* to be healthy; it did not come from the neck of the womb, for the absence of pain on lateral pressure showed it was not diseased, and when chronically inflamed the secretions of that part are viscous. The uterine sound entered free-

ly, and seemed to move on a smooth surface of an enlarged uterus. I left off the application of caustic, as it was no longer indicated; and as the liver was out of order, I gave blue pill, and ordered inunctions with mercurial ointment to the lower part of the stomach.

In September salivation came on; the sero-sanguinolent flow suddenly stopped, and she became delirious. The next day the discharge came from the womb, at first sero-purulent, then bloody, and then again sero-purulent with flakes of coagulated mucus described as "skins." Saline draughts, opiate injections and applications, iodide of lead ointment to the abdomen, were then had recourse to, to allay the abdominal pain. During this time the strength of the patient diminished; but little emaciation had taken place, although, even when the patient was not feverish, scarcely any food was taken or sleep enjoyed. Hysterical attacks became more and more violent, and for a few months it was necessary to remove the urine every day. Active uterine treatment was out of the question, for if, while the patient was lying quietly in bed, a digital examination was made, she would go off in an hysterical attack so soon as the finger touched the womb. Tonics and steel were given, and acetate of morphine.

About February, 1853, Dr. Bennet saw the patient with me, and we agreed on the urgency of pushing the exhibition of morphine to saturation point. For several weeks the patient took from two to three grains of acetate of morphine daily, at first without any appreciable result, then the pains in the hypogastric region gradually abated, and some time after sleep was induced. The dose of morphine was then diminished.

After the uterine discharge had lasted for more than twelve months, sometimes as a flooding, at others to a trifling amount, it ceased towards the end of August, and about the same time the patient brought up a considerable quantity of blood from the lungs; and notwithstanding repeated hæmorrhage to a less amount, she had all the appearance of health, and was able to keep a day-school.

In October, menstruation returned, being attended by great pain and a clotty discharge. Thus a highly nervous temperament, early marriage, repeated pregnancies, were the predisposing causes of a complaint for which it is impossible to trace a determining cause. She was often despaired of, and the cure is perhaps to be attributed as much to nature as to art. Although cured, the patient's constitution remains unaltered, and she is liable to relapses from over-work and over-excitement.

I have seen several cases more or less resembling this, in

which long continued hæmorrhage was the principal symptom of a low type of internal metritis. One is related at page 387 of Dr. Hennen's translation of Boivin and Dagis. Light is thrown on such cases by one observed by Dr. Mackenzie, in which the uterus being inverted, the effects of stimuli on its internal surface could be demonstrated. The irritation of this surface was always followed by a sanguineous discharge.

[*London Lancet.*

Uterine Vivaces.

The *Association Medical Journal* (June 17, 1853) contains an interesting contribution towards a pathological history of uterine "vivaces," by Eben Watson, M. D., Professor of the Institutes of Medicine in the Andersonian University, Glasgow.

M. Levret, in the *Mémoires de l'Académie Royale de Chirurgie* for 1777, published an elaborate paper, *Sur les Polypes de la Matrice et du Vagin*, in which he makes mention of a kind of polypus under the name of "vivaces."

The following is an abridgement of his description of them: They are, he says, ordinarily unattended by lancinating pains, or by sanious discharges, such as occur in malignant diseases of the uterus; but they cause frequent hemorrhages, like common polypi. They differ from them, however, in having no enveloping membrane, or, at all events, a very delicate one. They are found in two forms; either like *digital vegetations*, more or less long, thick, and numerous, parts of which break off, and come away from time to time with a hemorrhage; or they may be found in one mass, somewhat globular in form, and rendering the womb large and painful; and, though the vagina be found full of this mass, the womb is not at all emptied of it—"ainsi, comme il est communément impossible de parvenir à détruire la cause immédiate de ces fongosités, c'est peine perdue de travailler à les retrancher." "Ces excroissances," he writes at another place, "doivent être censées incurables, parceque ces ne sont que trop communément des végétations de quelque ulcère de l'intérieur de la matrice."

M. Herbiniaux, in his *Traité sur divers Accouchements laborieux, et sur les Polypes de la Matrice*, published at Brussels in 1794, gives a more lengthened account of vivaces. He expresses the same opinion with M. Levret, of their origin and incurability.

Cases of this disease have also been recorded by Herbiniaux, Gooch, Dr. Jas. Hamilton, Dr. D. D. Davis, and Dr. Bullen of Cork; and a case is related by Dr. Watson, in this paper, which occurred in his practice.

From the cases which have been recorded, Dr. Watson gives the following generalization of the chief features of vivaces:—

“In the first place, then, vivaces generally indicate their presence suddenly and without previous warning. There are no symptoms as yet recorded, from which any physician can infer their presence within the womb, until a discharge of blood occurs; and even then the diagnosis is obscure. The excessive pain in the lower part of the belly, taken along with the profuse hemorrhages, seems, at this period, to be the only mark fitted to excite a suspicion of the real nature of the case. But we are not kept long in suspense, for the progress of the growth is always very rapid. Within three months, in my case, it had fully distended the womb. The physical signs are then sufficiently marked; viz., the bloody discharge, the stretching of the uterine neck so as to form a tense diaphragm with an aperture in its centre, and the granulated and insensible growth, felt through it, fixed by a broad base to some part of the internal surface of the organ.

“The termination of the case has hitherto been invariably fatal, sooner or later; death being caused either by gradual exhaustion, or more rapidly, by the occurrence of colliquative diarrhœa, which is the common liberator of the victims of inveterate uterine disease.

“What, then, is the nature of this growth? Is it composed of vegetations from an ulcerated surface, as supposed by Levret, or, is it identical with the cauliflower excrescence of Dr. Clarke, as has been asserted by Dr. Gooch?

“In attempting to answer this question, I would observe that I do not regard the obvious difference of position or site as establishing any essential difference between vivaces and the cauliflower excrescence. At all events, as Dr. Gooch has remarked, they do not, in that respect, differ from each other ‘more than polypus of the neck and orifice from polypus of the fundus of the uterus.’ And Sir B. Brodie’s case, referred to by Dr. Gooch (*op. citat.* p. 304,) would seem to be an instance of the occurrence of the cauliflower excrescence *within* the womb.

“But, while I acknowledge that the growth just named may occur, though very rarely, within the uterus, still, I believe that certain marked differences exist between it and vivaces. The most important of these is the pre-existence of ulceration of the internal surface of the uterus. This occurrence was very clearly evinced in the case, which I have narrated as having occurred in my practice, by the pain and tenderness on pressure above the pubes. But I must confess that the profuseness of the hemorrhage, at this stage of the affection, remains unexplained; nor do I know of any circumstance capable of throwing light on the phenomenon. There was no evidence, at that period, of a growth within the womb; and the pain of the fundus uteri was not felt until after several severe hemorrhages. If we could suppose that some one or more enlarged and atheromatous vessels had been ruptured by the shock of the patient’s fall, and that the wound,

thus occasioned, ulcerated instead of healing, we might, perhaps, explain the history of the case; and, although it is a theoretical, it is the only feasible explanation I am able to give. But, however this may be, there can be no doubt of the reality of the inflammatory action which speedily ensued, and which, though actively treated, terminated in vegetations.

"On the other hand, the cauliflower excrescence of Dr. Clarke is seldom accompanied by pain; indeed, I may say, never by pain so severe as that which precedes the formation of vivaces. The former is a still more insidious disease than the latter; and hence Dr. Clarke, in his original paper, lately republished by the Sydenham Society,* informs us that he had never found it less in size than a blackbird's egg.

"Another remarkable point of distinction seems to flow from the preceding. It regards the nature of the discharge. That from cauliflower excrescence is generally limpid and watery, hardly soiling the linen, and becomes only occasionally bloody, as at the menstrual periods, which are not often disturbed at the first, or after some violent bodily exertion, capable of breaking the delicate structure of the growth. Whereas, in cases of vivaces, the discharge is either bloody or purulent, and ere long it becomes very fetid; evidently proving the much greater vascular action going on in the latter than in the former instance. The watery discharge from the cauliflower excrescence seems to be a mere mechanical transudation of serous fluid mixed with the increased mucous secretion of the irritated vagina, and sometimes, also, with the cast-off cells of the growth itself. In all such cases, too, when hemorrhage occurs, small brainy masses may be found in the discharge, identical in structure with the cauliflower excrescence. Such hemorrhage, therefore, is likewise mechanical, flowing from ruptured substance of the growth. But it is far otherwise with vivaces. They often die and come away as putrid matter, but never seem to break from delicacy of structure; and the hemorrhage in these cases must proceed either from the progress of the original ulcer, or from the smaller vegetations from its surface, which still retain their vascular nature. The longer and more bulky growths are to all appearances *evascular*, being white and spongy, and filled with cheesy substance like concrete pus. For, as I remarked above, the ordinary discharge, in cases of vivaces, is always purulent when it is not bloody; this, of course, arises from the progress of the ulceration, which is continually sustained and prevented from healing by the mass of its own unhealthy vegetations.

"This leads me to mention, as a fourth distinction between these two kinds of uterine growth, that vivaces do not shrink in bulk after death, as happens in such a remarkable manner with the cauliflower excrescence from the os uteri. But I regret that, for reasons formerly mentioned, I cannot speak with precision on the minute internal structure of vivaces. If, however, I am warranted in concluding,

* Essay on Diseases Peculiar to Women.

from the history of such cases, especially those points in it to which I have just adverted, that vivaces are nothing more than exaggerated vegetations from an ulcer of the womb, matted together by inflammatory effusions, and perpetuating the morbid lesion from which they originated, then nothing can be more different than their internal structure compared with that of true cauliflower excrescence. For, as I have elsewhere more fully explained (*Edinburgh Monthly Journal of Medicine*, for Nov., 1849), the latter growth consists of a congeries of simple and compound cells, some of which are expanded into delicate bags containing blood-corpuscles. These bags exist chiefly on the margin of the excrescence; and, when they burst, they leave the fibrils or hair like processes, which mark the latest period of its history. It seems to be the peculiar property of these cells to withdraw serum from the blood in the uterine vessels, and to permit its exudation through their walls, thus constituting the greater part of the discharge. But, of course, this ceases at death; and then the cells collapse, or, in other words, the excrescence shrinks away. But no such function is performed by vivaces, and no such shrinking occurs in them after death; and therefore I do not think the inference unfair, that no such mechanism exists in them as in the cauliflower excrescence.

"I have not hitherto introduced the question, whether or not vivaces are malignant in their nature. The opinion of Levret as to their being incurable, and some of the cases recorded by Herbiniaux and others, would seem to indicate that such really was the case. But I am inclined to think that vivaces may or may not be malignant, according to the character of the ulcer from which they spring. This opinion is founded on that which has already been stated and proved, with such data as I possess, regarding the pathological significance of the vivaces themselves; and I think it unnecessary to enlarge upon this point at any greater length. Suffice it to remark, that on this important feature of the case will depend the prognosis and the treatment.

"I do not assert that all cases of malignant disease are incurable, when I say that malignant ulcer of the body of the womb belongs to that category. Its advance is generally considerable before it is clearly diagnosed, and even then it is out of the reach of efficient means of eradication. And when the vivaces have sprung from a non-malignant ulceration, it may still be impossible to root out the morbid parts before the patient's condition has become a hopeless one. In some cases, however, it may be attempted by ligaturing the long vegetations, making the cord cut as well as strangulate the growth, and then cautiously but effectually applying a caustic substance. I should myself prefer the common caustic, because its action, as well as the bleeding, might be conveniently arrested by injections of vinegar and water. As soon as possible thereafter, alteratives and tonics should be given to change and improve the action of the internal surface of the womb. But I feel that I cannot, with propriety, even attempt to frame directions for the treatment of vivaces; and I there-

fore leave it to others to draw the practical inferences deducible from the preceding pathological data regarding that very rare but most interesting affection of the uterus."—[*Amer. Jour. Med. Sciences.*]

Ergodelateria. By Prof. SLACK, of the Cincinnati College of Medicine and Surgery.

I send you an essay on a *vexed theme*, which has occupied the Medical Faculty since the first settlement of the Valley of the Mississippi. Much speculation and observation have been expended on it, and I believe, up to this time, without a satisfactory solution. It is vulgarly called *milk sickness*, because the disease seemed to arise from using the milk of cows somehow affected by a strange distemper, which, when exerting an influence, produced on the animals various appearances of disease, such as weakness of parts, trembling, convulsions, &c.; oftentimes death ensued. Where cattle were sensibly, though perhaps not perceptibly, affected, the calves of such dams, depending on the milk of the latter for support, almost invariably died. The butter made from infected cattle, as well as the milk, have proved a source of serious disease to many families, spread throughout the country; especially in different newly settled parts. The flesh of cattle even but slightly affected has been found unwholesome, and even poisonous. The old physicians know well, the many instances of this distressing malady, called *milk sickness*, in the neighborhood around Cincinnati. Even a number of deaths have occurred in the great Valley, traceable to no other source than the products of the milk cow, and the beef of infected cattle. Though the disease has passed from us, it still lingers on many of our borders and new settled places.

It is, therefore of the utmost importance that its cause be deciphered, in order that the deadly effects may be parried and removed.

The conjectures in regard to the cause, from time to time have been uttered or published. Respectable men have written or affirmed, that the disease arose from the cattle poisoned, by cropping the *Ranunculus*, or *vesicating crow-foot*, found frequently in meadows and pasture grounds; a course of action which cattle never pursue. They always *discriminate* their food unless *insidious*. Some have referred the cause to local *miasmatic influence*. Some to the water near which the malady prevailed, supposing a peculiar mineral or metal to have contaminated the watering place. The writer of this has been called on, more than once, to analyze waters thus situated.

Some have invoked the aid of certain creeping, and, reputedly,

poisonous vines running in pasture flats, as the cause. To the writer of the present essay, all these particulars are but guesses, most of them fanciful, and fall quite short of the *truth*. The cause is, I conceive, not difficult, taking into view the amount of botanical and chemical facts and principles, for some time, and especially, recently accumulated.

It is found that grasses, of which wheat and rye are but varieties, in producing their seeds, or corn, as termed in Europe, are sometimes in a diseased state when the seed is maturing under certain circumstances, so that many seeds in a head or spike are not natural, but a *monster* or a changed result. After a careful examination, it has been discovered that numerous seeds, in a grass head, spike or panicle are affected by a *small parasitic fungus*, so as entirely to change the form and character of each seed affected, from a nutritious *bercal* to a *poisonous and very unwholesome substance*. The spurred rye, "*secale cornutum*," is an example in point. Grasses growing in certain grazing lands, hereafter to be noticed, are equally affected with rye, in the ears, spikes or seed heads in many grains, a like *parasitic fungus*, so as to change the character of each seed affected, just like the "*secale cornutum*," or horned rye, whose character, as *ergot* and the *pulvis jarturiens* of Drs. Stearns and Aperly, is, to a considerable extent understood by the profession.

The proofs of this *poisonous principle* in diseased grass seed—grass being the direct food of cattle—are seen in various botanical authors, as well as noticed in my own researches. In Chambers' dictionary, the basis of Rees's great Encyclopedia, published in 1783, this character of the diseased seeds of grasses in general is noticed, and the very calamitous results to the poor and others from eating *rye bread* made of flour, prepared from grains filled with *secale cornutum* or *spurred rye*, the latter disclosing a virulent poisoning principle, are very particularly detailed. The poisoning is presented as quite permanent, and the diseases resulting many, and most distressing.

In Wood & Bache's Dispensatory, of 1845, page 311, it is remarked "in all the *Graminaceæ*, or grass tribes," "the place of the seeds is sometimes occupied by a *morbid growth*, which, from its resemblance to the spur of a cock, has received the name of *Ergot*." The celebrated James T. W. Johnston, F.R.S.S., Professor of Agricultural Chemistry in the University of Durham, England, invited by the State Agricultural Society of New York, delivered at Albany, the capital, a course of very able agricultural lectures in 1850. His remarks on this subject will be found in his published lectures, by Saxton, of New York city, page 72. He fully endorses the permanent

poisoning character of the *secale cornutum*, and the distressing results of the use of infected bread to the poor classes of Europe, in serious and long continued disease. He adds (in his own words,) "it is a curious fact that this same *Ergot* is found, not only in rye, but in various kinds of common grasses, on which cattle feed, particularly among the rank grasses that grow in marshy places. It was immediately inferred that this kind of *fungus* thus produced in these grasses on which cattle feed, and which, in rye, produced the remarkable feverish effects on the human body, was the cause of similar effects in cattle, which, in many districts" of Great Britain, "prevails to such an extent that the farmers find it impossible to secure calves." Many other proofs, if necessary, might be adduced. My experience coincides entirely with the latter gentleman's positions.

1. That the poisoning in cattle, which affects their milk, butter, beef and calves, results from an *Ergot* or *fungus* production in *grass seeds* which the cattle, at certain seasons, eat in grazing.
2. That this poisonous principle, affecting the cattle through their products, forms, in our communities, what is designated as the cause of *milk sickness*, formerly so common all around us.
3. That the *Ergot* in rye results from much wet just before seed or grain setting, followed by great heat or high temperature. The spurred rye is found more especially in low or wet grounds; if at all on up-lands, in very wet seasons. The same principles hold good in regard to all grazing or pasture grasses. The seeds are found diseased or ergotised chiefly in low, wet grounds, great heat having prevailed, in rank and vigorous grass. Hence, milk sickness prevailed fearfully, some years since, up the Licking river and in adjacent lands, opposite Cincinnati, near Brookville, and in perhaps one hundred other places, where it is now unknown. Why now unknown? The cause has been removed by clearing and cultivating the land, and draining the swamps. The remedy, then, is easy. Whenever drainage and cultivation are vigorously pushed, the disease is no longer found; because the strong pasture grass having air and sun light, the *nidus* of the fungus seeds is not furnished, and the fungus, which is a poison *parasite*, will not grow and ergotise the seed of the grass.

Early in November of 1839 and '40, by request, I visited a very respectable family. I found them all laid down with *milk sickness*. The house was an hospital—all were sick. The lady was retching and vomiting in a manner unusual to me. She died during the night after. What was the condition of the lands around? The family lived in a fertile place, $1\frac{1}{2}$ miles from Memphis, Tenn., on the east bank of the Wolf river. The whole space, except a small strip of land, was frequently

overflowed by water. In this particular case I looked round carefully for a cause of the very distressing malady, and was satisfied it resulted from something produced in the vigorous grasses of those *low lands*, since which time botanical facts confirmed my impressions, and led to the sentiments above.

It has been noticed, that at harvest onward to the middle of winter, the disease is found in its worst form. It may have occurred in the spring, but of that I have no information. If so, it must have resulted either from some of the infected seed still remaining, or from the cattle, previously poisoned continuing diseased, grazing in the low swamp pastures.

The chemical character of ergot of rye and of grasses, I have not space to furnish. Indeed, no very reliable analysis of its poisoning parts and simple elements has been given. The smut in maize, Indian corn, is produced by a *parasitic fungus* of poisonous character. I have known many cattle, in the fall season, to die from eating the smutted corn ears left by the huskers when gathering the corn. The ergot of rye and other grasses, as shown, is produced by a *parasitic fungus* of the same genus as the smut in Indian corn. The ergot is possessed of a concentrated poison, or that which is quite active in its operation. In the deleterious principle of both Indian corn smut, or ergot of rye and other grasses, there is, no doubt, a small proportion of nitrogen. This is found to be the fact in regard to *all poisonous vegetables*. Let the nitrogen be in large quantity, and the *vegetable article* is, in general, nutritious as tea, coffee, chocolate; but in tobacco the nitrogen is small in quantity, and the poisonous character is frightful! It ranks, notwithstanding the unnatural use made of it, as a near *relative*,* in poisonous character, to prussic acid, the most terrific poison in the catalogue, to which arsenic is almost nothing in comparison. The *essence of tobacco* and prussic acid are both *vegetable products*. Let tobacco users beware; the affirmation here is no *tale*, but a solemn and impressive *truth*.

In conclusion, I propose to call the poisoning principle of ergot of rye and other grasses, *Ergodeleteria*, from ergot, (French) a spur or cock spur, and Deleterion (Greek,) poison. *Translation*: The poisonous principle of ergot of rye and other grasses.—[*Western Lancet*.

* "Near relative." What the essence of tobacco is has not been decided, so that the expression "near relative," is in point. The prussic poison is an acid of peculiar character, not sour, but by combination with bases forming salts is its constitution decided. Nicotine $C_{10}H_8N$, by Turner; not very certainly decided, is an alkali, yet our positions above are by no means disproved.

In regard to the treatment of ergodeleteria I have said nothing; that is obvious to the experienced practitioner; it is to be removed from the system.

On the Use of Black Cohosh in Chorea. By T. J. GARDEN, M. D., of Wyliesburg, Va.

We present you a detailed and circumstantial account of two cases of Chorea of deeply interesting character, reported to us by our request, in a letter from Dr. L. T. Wootten, of Lunenburg; and, as the Doctor writes with precision and clearness, we give his letter entire, although we have no authority for so doing; yet we feel assured he will pardon the liberty we have taken.

"H. L. Coleman, æt. ten years, was taken, after exposure, with acute rheumatism, or arthritic inflammation of the knee joints, in the winter of 1842, attended with much swelling, and pain and high arterial excitement. He was visited and attended by Dr. H. May, of Lewiston. He was confined about six weeks. Early in the spring he commenced school, walking daily the distance of about two miles to and from school, and at night complained of fatigue and aching in his extremities.

"After attending school for about three weeks, he was unable to continue his exercise, on account of his inability to walk, symptoms of chorea having manifested themselves to such an extent as to alarm his parents, and Dr. May was again requested to visit him. He continued his services, in connection with Dr. Irby, for nearly twelve months. Failing to receive any benefit from the treatment of these two intelligent physicians, who tried all of the usual and ordinary remedies used in such cases, his parents sought the aid of two Thompsonians, who also drugged and steamed him for about twelve months, without any palliation or alleviation of the symptoms. The above is the imperfect history I obtained of the case when I first saw him (rather accidentally) about two years subsequent to his first attack. During the warm months of summer he suffered less than during the winter and spring. I found him much emaciated; anæmic; light hair, blue eyes and fair complexion; tongue thickly coated with a brown yellow fur, pointed and very tremulous; breath loaded and offensive; thirst; great difficulty in deglutition; pulse about one hundred and ten, soft and very compressible; bowels constipated; loss of appetite, &c. He was unable to control a single voluntary muscle for a moment. Pressure along the spine threw him into violent agitation, evincing much tenderness and suffering when the pressure was even moderate. With scarcely a ray of hope, I prescribed an alterative and laxative pill, composed of equal parts of rhubarb, aloes and blue mass, every other night, and directed, as soon as the pills evacuated the bowels thoroughly, to commence with the powdered cohosh in teaspoonful doses, mixed in syrup of molasses. I left about 1 oz. (all I had at the time), and did not see or hear from him again until the 1 oz. was taken, when his brother applied to me for more, stating that H. Lee was evidently much improved. I sent him another oz. of a fresher and better article than the first, such as

I always use, and greatly prefer if I can get it, viz., the article which is put up in pound papers by the Shakers of Western New York. I directed it to be used as before, in teaspoonful doses three times a day; the root as it comes to us, having been previously reduced to a fine powder. In ten days or two weeks, without having taken all of the last oz., he was well, entirely free from every vestige of the peculiar symptoms which characterize chorea, and in a very short time again commenced school. The following winter he had a return of the pains in his knees, attended with symptoms of chorea, but in a much milder form. The cohosh was again resorted to without any adjuvant whatever, not even restricting his diet; the symptoms gave way as if by magic, and he was able to resume his usual exercise in about a week. The next winter the symptoms were again manifested in a still milder form. By proper attention to his clothing, and a few doses of the cohosh, he was very soon relieved, and has since had no return of the disease, and is now a grown young man, of active, industrious habits, and quite sprightly for his opportunities.

"John Wood, æt. about nine years, was exposed to the variable and inclement weather of the spring of 1850; was taken with feverish symptoms at night, restlessness and aching in his limbs, with loss of appetite, furred tongue, &c. In a very few days, which was about the 1st of March, symptoms of chorea came on, with occasional headache. The disease was so mild that his father brought him on horseback to my house. Before taking his seat, I observed to his father, that his son had St. Vitus's dance. He had never heard of the disease, and evinced all the anxiety of the parent; but upon being told that his son would in all probability soon recover, became reconciled, and carried him to a public gathering, where he remained all day, exposed to the excitement and curiosity of a large crowd, and reached home at night. John complained of great fatigue, with headache, and the symptoms of chorea greatly aggravated. The fever continued until morning, when he was observed to be delirious. He had taken, the night after reaching home, a small blue pill, which operated freely on the bowels, attended with a good deal of griping. The fever and delirium continued for twenty-four hours before I saw him. I found him with a hot skin, a tense and bounding pulse, dry tongue, relaxed bowels, perfectly furious with wild delirium, and unable to protrude his tongue, or to control a single muscle. I have never witnessed such violent and continued agitation of the whole muscular system. It was in a constant state of the most violent agitation, asleep or awake. I opened a vein and abstracted 10 oz. of blood, which was sized and buffed, with great amelioration of the symptoms. Directed cold applications to the head, with warm pediluvia, with mustard in the bath, and cool elm injections, and directed a repetition of the bleeding if the fever returned, being unable to see him again until the next day. His fever and delirium returned, but he was not depleted until the day after the first bleeding, when I again resorted to the lancet, taking 8 or 10 oz. of blood, with decided relief to all the symptoms, and applied a blister to the nape of his

neck. He became rational after the blister was dressed, but the symptoms of chorea continued still in an aggravated form. I was unable to obtain any of the cohosh until the 6th or 7th day after his attack or confinement. I commenced it in teaspoonful doses, given in syrup three times a day. In one week he was able to walk about the room, and at the end of the second week was apparently well—free from any muscular tremors whatever. The powders seemed to occasion distress, making him sick at the stomach after the first week, and the tincture, prepared in the proportions of 1 oz. of cohosh to 1 pint of good rye whiskey, was substituted, which was also given three times a day, which entirely eradicated every trace of the disease. During the last winter he had a slight return of chorea. The cohosh was used, and a bottle of the comp. syrup of sarsaparilla; since which time he has had no return of the disease, and is now in the enjoyment of robust health. In some six or eight cases in all, I have only seen one in which the *cimicifuga* failed to cure, and that one had suffered for some two or three years before any remedial measures were used. The child's mind was almost fatuitous, and attended with irremediable organic lesion of his physical system. To you alone am I solely indebted for the knowledge of the use of the remedy in the treatment of chorea; and allow me to tender my grateful and kind acknowledgements and obligations for this as well as other equally important suggestions, which you have so frequently and so kindly made.

Faithfully, your ob't serv't,

Pleasant Grove, Sept. 24, 1851.

L. T. WOOTTEN."

As you express a desire for short practical papers, we close this communication, with a single additional observation. We are fully satisfied the cohosh is adequate to the cure of all cases of chorea not complicated with incurable organic lesions, and where the intellectual faculties have suffered no impairment. We, ourselves, have witnessed a solitary failure only, and that was such an one as last described, nor do we know of any failures on record. The promptness too with which it arrests the disease, after the system has been properly prepared by purgatives, is almost incredible to those persons who have never witnessed or tested its action. For its mode of action, see our first paper. The doctrine we teach is, that one well authenticated medical fact is worth all the theory in the world.—[*Stethoscope*.

On Passive Hæmorrhage from the Kidneys. By E. G. CROOKE, M. D., Edin., &c., Chorley, Yorkshire.

Of the many phases of renal disease, there is one so insidious in its progress and indefinite in its characteristics, that although attention cannot but be drawn to the condition of the urinary

organs, yet the exact locality of the disease is by no means evident. This arises from the obscure nature of the general symptoms; for as the local ones refer rather to the bladder than to the kidneys, the former may possibly be looked upon as the affected organ. Moreover, the action of chemical reagents upon the urine secreted in this form of disease, and the average specific gravity and quantity of that fluid, give little aid in leading to an accurate diagnosis, unless the microscope be used to assist in the investigation, when the presence of blood corpuscles, epithelial cells, with occasional casts of uriferous tubes, evidence that the kidneys themselves are suffering from some lesion, functional or organic. When the urine, upon the application of proper tests, clearly indicates the presence of albumen, and when the blood-globules are in such quantity as to color that fluid, and subside to the bottom of the containing vessel, there can be no doubt as to the existence of hæmorrhage, active or passive, from some part of the urinary organs, but this form of "passive hæmorrhage from the kidneys" is not so easily discerned.

Several cases of chronic hæmaturia having occurred in the practice of the writer, he ventures to bring their general history under notice, more especially as he has been induced to think it probable that this form of renal disease is much more frequent than is supposed, and that it is often the first stage or forerunner of that condition in which free albumen is present in the urine—viz., of "chronic albuminous nephritis," and that when the "acute desquamative nephritis" following upon the exanthemata is supposed to have yielded to treatment, chronic hæmaturia is apt to remain, or to be induced upon the application of a slight exciting cause.

Symptoms.—Passive renal hæmorrhage offers to our notice two classes of symptoms—the general and the local. The general are those of anæmia, the result of a continual draining away of that vital fluid, the blood; the local refer chiefly to the bladder. The general symptoms are, a pallid complexion, of a dirty-white or muddy color, with dilated pupils; occasional headache and singing in the ears; the tongue is large, flabby, and furred, the edges thereof indented by the teeth; the bowels are open and loose; there is much flatulence and nausea, with irregular appetite; palpitation is frequent; the surface of the body is cool; the skin soft and relaxed, but dry; the pulse full, soft, and bounding, or small and soft, putting on the former condition upon change of posture; there is gradual but progressive emaciation, irritability, and gloominess of temper, with great disinclination to any exertion, bodily or mental.

These symptoms vary in degree according to the longer or shorter duration of the disease.

2nd. The local symptoms are in some cases an aching pain in the loins, but this is, perhaps, rather an exception than the rule. They, the loins, are rather the seat of an uneasiness and feeling of weakness, which is increased upon pressure: the calls to micturate are frequent and urgent, attended with pain, sometimes referable to the penis, sometimes to the inside of the thighs and to the perinæum: the urine is not much, if at all, increased in quantity when compared with the amount of fluids imbibed.

Pathological Indications of the Urine.—The usual quantity of fluids being taken into the stomach, the average daily amount of urine excreted may be stated at about fifty ounces. The specific gravity ranges from 1015 to 1035, the latter being the standard of the *urina sanguinis*. A gradual reduction in the weight of the urine has been observed in those cases which have been attended with frequent relapses. The colour is that of pale golden sherry; the odour is sweet; when recently passed, it has barely any action on litmus paper. A distinct alkaline re-action upon reddened litmus has not, however, been observed. When poured into a test-tube, a very slight cloud may be seen floating near the bottom; if allowed to stand for an hour or so, a small opaline deposit, easily dispersible, will form. The recent urine is unaffected by heat, or NO^5HO ; but if allowed to stand after their action, a small flocculent precipitate sometimes forms; occasionally, however, no precipitate is visible to the naked eye. Of that portion which is allowed to stand, the supernatant liquid is unaffected by heat and NO^5HO ; the deposit, however, is dissolved by the latter, indicating the presence of phosphates; and when heat is applied to the mixed fluid, as in the recent urine, a precipitate may or may not be the result. Upon submitting a drop of the recent urine to the field of the microscope, blood-discs, turgid or collapsed, single and not aggregated, together with epithelial cells and occasional casts of the uriniferous tubes are seen; no pus-globules have been detected. Such are the usual characteristics of the urine; but the action of concurrent causes, as exposure to cold and the imbibition of diuretic fluids, renders the urine acid for a time, when crystals of uric acid and of the lithates, together with blood-discs, are seen.

It will be observed that the symptoms, general and local, are those of that form of renal disease termed by Rayer "*Chronic Nephritis*," but that there is an important difference in the character of the urine. In treating of this "*chronic nephritis*."

Dr. Christison states ("Lib. of Med." vol. iv. p. 270) "that the urine very seldom contains blood or albumen, unless other renal diseases concur." However, of that form of renal disease now under notice, blood-globules have been invariably contained in the urine, but could only be detected with certainty by the microscope. Liability to passive renal hæmorrhage appears to be either constitutional or acquired. Persons constitutionally predisposed are those of lax fibre, fair complexion, with skin soft and supple, easily excited to action, but as readily depressed: persons of a tuberculous tendency, prone to affections of the mucous membranes, as catarrh, bronchitis, diarrhœa, &c., whose arterial system is in that state which may be termed irritable. Such a constitution appears, as it were, acquired by two other classes, who are specially prone to this hæmaturia—viz., those who are in the habit of consuming large quantities of diluent fluids, as hay-makers, reapers, engineers, stokers, bleachers, tenters, dressers, and spinners in cotton-mills—persons who, after exciting great cutaneous action by severe manual labour, or by working in a high artificial temperature, check the same by exposure to a much cooler atmosphere after the cessation of their daily employment. The habitual dram-drinker is most prone to the acute form of Bright's disease, or to that stage which probably supervenes upon this—viz., that in which the urine is of low specific gravity, and contains free albumen. May not the frequent use of spirits, from their direct action upon the kidneys, by over-stimulating the organs, produce this hæmaturia which may ultimately pass on to "chronic albuminous nephritis?" It may be observed, that of several cases of "passive renal hæmorrhage" which have occurred in the practice of the writer, not one could, as far as the patient's recollection served, be traced to any dropsical affection, proximate or remote.

The average age of the persons affected was above thirty-five years; they were chiefly of the male sex, probably on account of the greater exposure of males to the predisposing and exciting causes, which latter appeared, as far as they were traceable, to be exposure to cold, damp air when in a state of perspiration, frequent use of diuretic spirituous liquors—in fact, any circumstances which, depressing the heat of the body, produced congestion of the viscera.

The Pathology of the Disease.—The presence of blood in the urine affords ample proof of the existence of hæmorrhage from some part of the genito-urinary passages; the state in which the blood-discs are found, the inadequacy of chemical re-agents to detect them, the occasional casts of uriniferous

tubes, and the natural colour of the urine, indicate that the hæmorrhage is renal, yet not of an active kind. But the comparative paucity of the globules discharged would lead to the conclusion that the kidneys are not suffering from any organic lesions, but from an unbalanced state of their circulation. This state of venous engorgement may probably exist for some time without any structural change in the glands themselves, but unless relieved, it is apparent that exudation will ultimately occur, and derange the whole action of these excernant organs. The actual progress of this hæmaturia into chronic albuminous nephritis has not been traced, the remedies used in the cases, of which this paper is a general history, having had the effect of checking, if not of curing the hæmorrhage.

The therapeutical indications are three in number. First, to check the hæmorrhage by relieving the congestion; secondly to restore the general health; thirdly, to guard against relapse, and this is an important point, as there is a great tendency thereto upon the application of any exciting cause. The first indication may be effected by rest, daily use of the warm bath, with friction to the bodily surface, local depletion, abstinence from diuretic drinks, bland farinaceous diet, and the use of astringent remedies. To relieve the gastro-hepatic derangement, a small quantity of blue-pill, with a sedative saline draught, will be found useful at intervals during the exhibition of astringent remedies, the best of which is gallic acid. It has been given in the following form: Gallic acid, a drachm; dilute hydrochloric acid, two drachms; solution of hydrochlorate of ammoniæ (E. P.) one drachm; distilled water, five ounces and a half, as a mixture; a tablespoonful to be taken every fourth hour. The therapeutical effects of gallic acid are well described by Dr. Golding Bird:—"Gallic acid acts as a direct astringent, reaching the renal capillaries, and finding its way into the urine, which becomes strongly charged with it, &c." To relieve the irritability of the bladder, five grains of soap-and-opium pill should be used every night as a suppository. These medicines should be continued until the hæmorrhage ceases, and the vesical irritability which remains for some time after the cessation of the hæmorrhage, is relieved by tincture of cantharides, in doses of from ten to twenty drops, combined with an anodyne. When the urine is free from blood-discs, the general hygienic rules for restoring tone to the system should be enforced; animal diet, with a few glasses of sherry daily, may be allowed, and quinine with iron prescribed. As preventive measures, the warm bath with friction should be daily persisted in; flannel should be worn next the skin, and all exposure to exciting causes studiously avoided.—[*London Lancet.*

Treatment of Psychical Disturbances in their First Stage.

By Dr. ERLÉNMEYER.

Upon the treatment of psychical disturbances at their commencement, often depends the whole course of the disease, and especially the final issue in recovery or hopeless idiocy. A very common method consists in making large abstractions of blood, which seem required by the frequently exalted temperature of the head, the accelerated circulation in the cranial arteries, and the over-distension of the veins; in a word, the cerebral congestion, as it is usually expressed. Although the experience of all countries declares this treatment inappropriate, in most cases even positively injurious—although the testimony of all our hospitals for the insane is opposed to it; yet numerous cases still occur in which patients are brought, with rapid strides, to incurable idiocy, by means of copious blood-letting.

The time is not long gone by, when in our best insane hospitals, the use of narcotics, in the treatment of psychical diseases, was wholly interdicted. This view was first changed by the recommendation of opium by Dr. Herman Engelken; and this remedy now began occasionally to be tried, and, indeed, in somewhat larger doses than usual. The excellent results which followed this practice, in certain cases, continually encouraged to further trials; so that now it is considered indispensable by our best physicians.

The form of psychical disturbances in which opium succeeds best, is melancholy, in its various shades. It animates the patient, exalts innervation, and gives to the despairing sufferer new courage. I have tested this remedy in private practice. With few exceptions, mental disturbances, in their first stage, accost us as a melancholic temper, so that these cases also appear appropriate for the administration of opium. Upon different occasions, when I have been called to the treatment of commencing mental disturbance, I have, therefore, decided upon the exhibition of opium, and have seen really surprising results from it, since many patients have not only been temporarily improved thereby, but for the most part have been completely cured.

Opium, administered in large doses, operates, in many respects, entirely different from small doses. It produces no congestion of the brain; it does not induce constipation—on the contrary, I have, in several cases, observed severe diarrhœa following the use of this remedy, which required its discontinuance. I have, in all cases in which constipation followed the exhibition of small doses at the commencement, seen this

disappear upon its continued and increased administration. The nutrition of the patient is very quickly increased, and I have repeatedly seen the weight of the body gain from two to three pounds a week. The courage of the patient, which, in melancholy, is so depressed, becomes exalted; the constant complaints and lamentations are silenced; in short, the patient, in a brief time, is both corporeally and mentally changed.

In the hospitals, the exhibition of opium has been carried to six grains at a dose; and several physicians, especially those who first commended the practice, have carried it still farther, without observing any injurious effects. At the commencement of psychical disturbances, such doses, though they may be well borne, are not at once necessary; and the exhibition of from two to four grains twice a day will suffice completely to allay incipient melancholy.

The best form of opium is the powder, as such, or made into pills; whilst the tinctures and alkaloids have not been so efficient in my hands.

Whilst I now proceed to the indications and contra-indications, I should observe, in the first place, that the data brought forward are imperfect; and that I here mostly appeal to symptoms, will be excused by the reader, who knows full well that the diagnosis of the condition lying at the basis of mental maladies is infinitely difficult.

The highest indication for the exhibition of opium is the hyperæsthesia, which presents itself at the commencement of psychical disturbances in so manifold a manner. It matters not whether this hyperæsthesia be of peripheric or central origin; nor is it of any consequence in which division of nerves it occurs. The excellent effect of opium in pure neuralgias, should have long since led to its administration in hyperæsthesia of other nerves; and would certainly have done so, had not various fears, which were based more upon theory than practice, deterred therefrom. That opium is not so dangerous a remedy as it is generally represented in the manuals of *Materia Medica*, I have thoroughly convinced myself; and many of our German physicians, at the head of insane hospitals, will agree with me, whose authority must be acknowledged by every one.

Almost two-thirds of all psychical maladies commence as hyperæsthesiæ. One of the most common is the hyperæsthesia of the *Nervus Vagus*, with greater or less participation of the sympathetic, in the well-known form of præcordial distress, which Fleming has so well described, and which, together with headache, he enumerates as the most constant symptoms

of psychical disturbances. I have observed the præcordial distress in very different constitutions, as well of central as of peripheric origin, and always perceived good effects from opium.

The result is surprising when this præcordial distress is connected with psychical hyperæsthesia, a condition which is usually designated as *hypochondriacal melancholy*. These patients are fearful tormenting spirits to the physician, because they cannot be dissuaded from their hypochondriacal ideas by any process of reasoning.

A more numerous class of hyperæsthesiæ, which occur mostly at the commencement of psychical diseases, are the sensual. It is wonderful to what perversities patients are often led by this kind of alienation of the nerves of sense. A great part of the aversion to food occurring at the beginning of mental maladies, depends upon the hyperæsthesia of the glosso-pharyngeal or olfactory nerve. In food prepared in the ordinary manner, the patients smell and taste all possible singularities; when there is also simultaneously hyperæsthesia of other nerves, often of the vagus, they are sorrowful, anxious, distrustful, smell poison in their food, which increases and justifies their anxiety, and they begin to resist nourishment. Another complaint which we frequently meet with in patients of this kind, is that those about them know their thoughts. I have found this in many cases, where there was as yet no particular mental derangement; it is evidently a minor degree of hallucination of hearing, induced by hyperæsthesia of the acoustic nerve. Such a condition very commonly precedes the outbreak of peculiar hallucinations, as I have repeatedly observed in a patient who suffers periodically from hallucinations of hearing. A short time before the particular hallucinations, he has the sensation as if his thoughts were expressed by those about him, only that he does not clearly hear the particular words, as is the case upon the full development of the hallucination.

Most of the conditions which occur at the beginning of mental diseases, may be referred to these hyperæsthesiæ, which are usually designated by all sorts of other names,—*nervous irritability*, *exalted nervousity*, *nervous derangement*, &c.

When these hyperæsthesiæ exist in the manner just described, independent of any organic disease of the brain, manifested by anæsthesia, paralysis, &c., without the existence of any more serious affections of other important organs, of the heart, the lungs, the digestive apparatus, &c., which must be looked upon as the cause of the incipient mental disturbance, opium will do excellent service, and if it does not completely

and permanently cure, it still effects an important alleviation; but in the last-mentioned cases it does no good, and often may do harm.

There is also another contra-indication, which is not, however, very frequently in the way: it is vomiting occurring after administration of small doses. We need not be much disturbed, nevertheless, on this account, since no greater disadvantage is to be feared than that the opium will do no good. I must especially insist, that a coated tongue and other gastric symptoms should not deter us from the use of opium, since this is observed in almost all cases of psychical disease, immediately at the opening of the scene, and very commonly occurring as the first expression of alienated nervous function. Opium allays these so-called gastric symptoms generally very quickly, enlivens the appetite, and stimulates nutrition better than all stomachics. There are individuals in whom there exists an idiosyncrasy against the smallest doses of this remedy, who become thereby more excited, in whom a new train of symptoms is induced, as palpitation of the heart, ringing in the ears, greater disquiet, complete sleeplessness; in these persons we should desist at once from the farther use of opium.

Opium does excellent service, not only in melancholy, but in all other forms of psychical alteration which depend upon hyperæsthesia, if it is employed in the first stage of the difficulty, whilst in all psychoses of a *torpid character*, it produces little or no benefit.—[*Deutsche Klinik. Amer. Med. Monthly.*

The Efficiency of the Sulphuric Acid in Diarrhœa. By GOOD-EVE BOWRA, Esq., M.R.C.S.E.

As much has been said and written lately on the treatment of diarrhœa, I beg to offer my testimony on the happy effects of sulphuric acid on persons of all ages, with the full conviction that it is the quickest and most palatable, consequently the best remedy for that disease.

I was requested two years ago to send medicine to a young lady subject to diarrhœa, who had taken a passage to China in a ship not carrying a surgeon. Thinking there must be some mistake, I went on board the vessel and saw the chief officer, who thought himself quite competent to treat (from books and a medicine chest) any disorder likely to arise on the voyage. On asking this gentleman what he would do in cases of diarrhœa, his off-hand reply was, "Never care for that; always carry plenty of sulphuric acid on board, and I have never known it fail."

On the same evening I was called to a lady, seventy-five years of age, very subject to these attacks, which always lasted a week

or more, and as it was of great consequence she should return into the country in two days, I made up my mind to try the sulphuric acid, believing I should not be more successful with the old chalk mixture than her medical friend at home.

The following morning I found her up, and so much better, that she had only taken two doses; I gave her a third, which completely cured her. Since then I have used nothing else (save a mustard poultice) in all cases, either with or without pain, both in private practice, and at an institution to which I was attached, and I confidently state that during the whole period I have used it I have not met with one unsuccessful case. The only difficulty is, to persuade some people that acids would not increase their disorder, particularly those accustomed to the old chalk and aromatic confection treatment.

I now constantly recommend patients subject to diarrhœa, or who are nervous about cholera, to keep a bottle of the sulphuric acid mixture in the house, and on the first symptom of their complaint instantly to take a dose, which is generally sufficient to effect a cure. Many of these patients (I fear, jokingly) tell me they shall expect double charges, as two or three draughts of the acid mixture have more effect than the same number of bottles of the chalk mixture; and I may add, I feel so satisfied with the success of a two years' trial, that I have no hesitation in asserting it as my full belief, that deaths from cholera and diarrhœa would be very materially diminished if the authorities would appoint an agent in all poor neighborhoods, to give a dose of the sulphuric acid mixture to every necessitous applicant suffering from bowel complaint. They would have plenty of persons desirous of availing themselves, of this remedy, if I may judge from the gallons I gave away last summer.—[*London Lancet*.

Ergot of Rye in some forms of Retention of Urine. By
M. PASSOT, of Lyons.

Ergot of rye has not only the property of exciting the uterine contractions in cases of inactivity of the uterus, but is also very efficacious in the retention of urine which is caused by atony and paralysis of the bladder. MM. Baudin and Payan of Aix were the first who endeavoured to demonstrate that this agent does not act on the uterus alone, but rather on the lower part of the spinal cord. They also speak very highly of it as well in the affection which we have now under consideration, as in weakness or paralysis of the lower extremities.

Drs. Kinsley, Canuto-Canuti, Sainmont de Rocroy, Allier of Marcigny, have also recorded cases which bear favourable

testimony to the utility of ergot in paralysis of the bladder. I will now briefly mention some of them:—

Captain B., aged 60, suffering from dysuria, which had increased greatly during the last three months, until it suddenly changed to a complete retention, which necessitated the employment of the catheter several times a day. For two months a host of remedies were used without avail; there was not the slightest improvement. The prostate became enlarged, and the patient suffered much from the use of the catheter, which had to be passed twice every day.

Fifty centigrammes (about eight grains) of ergot of rye, infused in a cupful of boiling water, was administered three times a day. At the expiration of six hours, the patient passed a small quantity of urine, and required the use of the catheter only once in the day. Afterwards it was only passed once in the forty-eight hours, and after ten days the bladder was left to itself (*Kinsley's Journal des Con. Med. Chir.* March, 1844.)

A lady, aged about 75, was affected with paralysis of the bladder, which for a long time required the use of the catheter. Ergot was prescribed in doses of fifteen decigrammes (about twenty-eight grains) in infusion. On the sixth day of this treatment, it was no longer necessary to pass the instrument, the patient being able to pass water spontaneously (*Canuto-Canuti, Bull. des Sciences Med. de Bologne*, 1845.)

A man, named Rousseau, aged 58, of a nervous temperament, was, in consequence of a fit of passion, attacked with a complete inability to urinate. The bladder was obliged to be emptied by the catheter. The inertia of this organ continued in spite of cold injections into it, cold enemata, the application of ice, also a blister to the hypogastrium.

Strychnia applied, by means of ointment, as a dressing to the blister, also by frictions in the axillæ, on the following day produced cramp in the legs and arms, and was presently accompanied by stiffness, so that it became necessary to discontinue the use of this remedy. There was not the slightest action on the bladder. It was at this stage that the author conceived the idea of giving ergot of rye. He prescribed six grammes (about ninety-two grains) coarsely powdered, to be put into a litre (about thirty-four ounces) of water, macerate for two days, filtered, and injected cold into the bladder. Seven minutes afterwards the patient experienced a desire to urinate, which, however, he could not then satisfy. The next morning the injection was again administered. Eight minutes after he had vesical tenesmus, and then spontaneous emission of urine. The injections were continued for some days. The cure was complete. (*Sainmont, Gazette des Hôpitaux*, 1848.)

In 1848, Dr. Allier, of Marcigny, sent a letter to the National Academy of Medicine, in which he gives as the result of his observations, that in only one out of fourteen cases ergot proved of no use.

I also am in possession of some cases which, in an incontestable manner, prove that ergot is capable of restoring the contractility of the bladder. The following is the most remarkable: In the month of July, 1846, I was consulted by M. H., aged 60, of a dry constitution and a very well-marked nervous temperament. M. H. admits having indulged both in venereal excesses and in the excesses of the table, and it is these that he blames for the vesical paralysis from which he is now suffering, and which requires the catheter twice a day; otherwise there is no symptom of organic alteration, no fever, no enlarged prostate. The canal of the urethra is free through its entire length, and the urine when drawn off is perfectly clear. After having experienced the uselessness of tincture of cantharides and blistering the hypogastrium, I used the following prescription:—

Freshly powdered ergot	2 grammes (30 grains.)
Mucilage	120 “ (31 ounces.)
A tablespoonful every half hour. Shake the bottle.	
Ergot of rye, powdered	15 decigrammes (23 grains.)
Cocoa butter	a sufficiency.

To be made into two suppositories; one of them to be introduced night and morning.

On the same day, at the expiration of some hours, M. H. felt a desire to micturate. At my evening visit, I ordered a bath. The patient was scarcely in it before micturition took place spontaneously and with force. From this time to his death, M. H. has always passed water freely and without the assistance of the instrument. I should add that, to make certain of the cure, I continued the remedy for three or four days, but in a decreasing dose. M. H. died the 30th of January, 1848, of an acute pleuro-pneumonia, during the course of which not a single morbid symptom appeared in the bladder. It is therefore certain that ergot cures retention of urine which depends on pure and simple atony or paralysis of the bladder. But with regard to paralysis consecutive to apoplexy, or depending on other affections of the nervous centres, it is well known that they are unaffected by the remedy we are treating of.

[*Dub. Med. Press*, from *Gaz. Méd. de Lyon*.

Use of Chloroform in Hooping-Cough.

Dr. Fleetwood Churchill, in a letter to Prof. Simpson, published in the *Monthly Journal of Medical Science*, (Aug. 1853,)

alludes to his having mentioned, in his work on Diseases of Children, his having tried the inhalation of sulphuric ether in hooping-cough, with great benefit, in about a dozen cases, and states that he has since tried chloroform with equal benefit. But he always found, he remarks—

“Two obstacles to its full and fair administration to young children. In the first place, you cannot get them to give notice of the approach of a cough, so as to enable you to have the chloroform in readiness before the paroxysm commences; and when the paroxysm has commenced, as it consists of eight or ten expirations to one inspiration, the chloroform will have evaporated before it has been fairly inhaled. And secondly, young children have such a horror of anything near their mouths during the cough, that they will resist your trying the chloroform as much as possible, until they themselves have felt its power in relieving the cough. Owing to these two causes, and perhaps also to a want of clever management on the part of the mother, we shall find it fail altogether occasionally, and in other cases only partially succeed. But when it is fairly tried, as I have already remarked, its use is most beneficial.

“I have all along felt very anxious to try it in young persons of twelve or fourteen years old and upwards, because with them we can avoid the two difficulties I have mentioned; but it was not until this year that I had an opportunity. Four cases have come under my care, and the results are as follows:

“CASE I. Miss D., *æt.* 16, had had hooping-cough a month, when I prescribed chloroform. There was no complication, but the hooping was frequent, especially during the night. She was directed to have the chloroform in readiness, and to use it with each paroxysm; and she assures me that in two days the hoop ceased. The cough lasted a few days longer, but it was slight, and not in kinks.

“CASE II. Miss A., *æt.* 20, had been ill with hooping-cough for about three weeks, when I prescribed chloroform. The cough was not very frequent, and there was no complication. Two days sufficed with her also to relieve her of the hoop; and the slight cough which remained subsided after a week or ten days.

“In these two cases, the effect seemed quite magical; both had the disease well marked, and the families of both were prepared for a disease of two or three months' duration, as was the case with these other children.

“CASE III. Miss B., *æt.* 18, took the complaint from her brother, whom I was attending, and I therefore had an opportunity of giving chloroform from the commencement. She did not hoop any time she coughed; but she was directed to use the chloroform whenever she felt the tickling in the larynx, without waiting for a cough. By doing so, she found that she could postpone the cough indefinitely; and if it came on suddenly, the use of the chloroform instantly suspended it. About three weeks elapsed, before the tendency to cough and the use of chloroform ceased; but during that time she lost neither appetite

nor flesh. She slept well, was in good spirits, and able to follow her usual occupation. She went to the country quite well.

"CASE IV. Master B., æt. 16, the brother of the last case, when I first saw him, had the disease most severely. The kinks were violent and prolonged, the efforts to inspire and the hoop excessive; it really seemed as if he would be choked, or that something would give way. He had lost appetite, sleep, and spirits, although the disease had not lasted three weeks when I saw him. I tried chloroform with him, and it at once reduced the number of paroxysms one-half, but without mitigating them when they did occur. He took the chloroform very freely; and as he was not readily influenced by it, the quantity seemed to give him a headache, and he begged to be allowed to suspend its use. I the more willingly agreed to this, as he had a severe attack of diarrhœa. I therefore substituted two drops of prussic acid (Dub. Pharm.) with two or three of black drops three times a day. The improvement begun under chloroform, continued under this treatment, and at the end of five weeks from the beginning of the disease the cough had ceased, and he had regained rest, spirits and flesh.

"Although this last case cannot be regarded as cured by chloroform, the paroxysms were first diminished by it, and I have no doubt that it contributed to the beneficial effect of the prussic acid. The first three cases are, I think, very conclusive as to its value; and, if farther experience confirms them, we shall possess a means of cutting short this disease in adults, who, when attacked, suffer so severely.

"One word as to the mode of exhibition. In order to avoid the possibility of an overdose, I have never given the chloroform on a handkerchief, or by means of an inhaler, but have directed the mother (in the case of young children) or the patient to spill a little, say about thirty drops, in the palm of the hand, and hold this before the mouth and nose, sufficiently near to inhale it fully, but not so close as to exclude a portion of atmospheric air. The best time to begin is just as the patient feels the irritation in the chest increasing to a cough, but, if possible, before the cough commences; and the inhalation should be repeated with each return of irritation, unless headache be produced."—[*Amer. Journ. Med. Sciences.*

Internal Administration of Chloroform.

[The following interesting facts, bearing upon the value of chloroform internally administered, are derived from the proceedings of the Medico-Chirurgical Society of Richmond, published in the *Stethoscope*:]

"The regular business being voluntary communications, Dr. Snead related the following very remarkable cases:

"I. Called last year, at 9 P. M., to visit a gentleman in intense agony; had been on duty as fireman and extremely fatigued; evi-

dently suffering from severe colic; gave opium in large quantities, 200 drops of laudanum, and 2 or 3 grains opium with camphor, calomel, &c., without relief; in my opinion there was spasm of the intestinal canal; gave chloroform half teaspoonful in water; in a few minutes gave a teaspoonful more, and in 30 seconds the patient was asleep; he continued relieved during the half hour I remained with him: next morning found him as well as usual; learned that he had awakened in two hours, and then used a small quantity of laudanum.

"II. Called to see a negro man at night, suffering from colic, with diarrhœa and spasm of the legs; gave a pill of morphine and calomel with a teaspoonful of chloroform: he was relieved in ten minutes and slept two hours.

"Called at night, to see a negro who had been suffering from colic the whole afternoon, with vomiting, purging, cramps of abdomen and legs; gave Dover's powder 10 or 15 grains, then a teaspoonful of paregoric; he had already taken calomel 15 grains, with morphia sulph. $\frac{1}{2}$ grain: as he was not relieved, and the symptoms urgent, I gave half a teaspoonful of chloroform, and in ten or fifteen minutes half a teaspoonful more, after which he vomited. So soon as his stomach became quiet I gave a teaspoonful more; in ten minutes he was asleep, and got well without further treatment.

"IV. Was one of lead colic in a house painter; found him suffering from excessive irritable stomach; had had no evacuation, and could retain no medicine upon his stomach; after suffering three days without relief, I gave a teaspoonful of chloroform, which put him to sleep in fifteen minutes; his stomach was quieted so that a purgative was retained, and he was relieved. I believe that but for the chloroform he would have died.

"V. A stout athletic negro; suffering from violent spasmodic pain with vomiting; no evacuation from Saturday until Monday; stercoraceous vomiting; patient's countenance presenting a very bad appearance; I feared there was intussusception; felt a hard tumor in the abdomen with tenderness; gave calomel grs. xx; croton oil gtt. iv; used powerful emena, which merely unloaded the lower bowel; followed by three or four evacuations, but they did not indicate relief of the whole tract; gave a teaspoonful of chloroform; he was asleep in four minutes, and slept two minutes; gave another teaspoonful, which produced sleep in four minutes; in twenty minutes he expelled flatus; next morning he showed the action of calomel; eventually he recovered; suffered very little pain after taking the chloroform.

"Dr. Cunningham asked if its internal use was followed by irritation of the mucous lining of the stomach?

"Dr. Snead. No; the patient always went to sleep in five minutes at the farthest.

"Dr. Johnson. Chloroform is one of the greatest discoveries of the present age. He related the following cases:

"I. Gave 3i to a lady for a violent colic, and she was asleep in less than one minute, although she had been suffering pain all night. During this sleep she discharged flatus freely; and had a large bil-

ious evacuation unconsciously. She was perfectly relieved, without the use of any other remedy.

"II. Last night called to see a case of colic from over-eating. Gave a salt and water emetic without relief. Then gave chloroform 3i internally, and the patient was asleep in thirty seconds. In a few minutes an immense discharge of flatus occurred, and the patient was entirely relieved. Believes it worth all other remedies put together.

"Dr. Bolton had given chloroform internally but rarely uncombined. He frequently gave it with camphor, according to the formula of Smith of Edinburgh, viz: R. Chloroform 3i, camphor 3iii, and ft. solut. From 10 to 15 drops of this gave very prompt relief. At the close of the cholera season many cases of violent colic occurred, in which he gave this remedy with remarkable success.

"Dr. Wilson asked if the effects of the internal administration were similar to those from inhalation.

"Dr. Snead considered them different. Certainly there was less risk in the former than in the latter, since it did not interfere with the due supply of oxygen to the lungs."

On the Internal Use of Chloroform. By HENRY HARTSHORNE, M. D., Philadelphia.

Since 1848, when some account was given in this journal of experiments with chloroform, internally administered, it has been variously and extensively used by practitioners in different parts of the world. It is now generally recognized as being, when so used, a narcotic of the mildest and yet most powerful character, and as possessing in its pungency, also, a quality which recommends it in some cases above other anodynes.

The object of this article is chiefly to make some remarks upon its dose and mode of administration. Many practitioners within the writer's knowledge hesitate, from their recollection of its power as an anæsthetic to give it in doses of more than a few drops; and as the drop is exceedingly small, such doses are really often insignificant. The writer can assert, from positive experience, that a fluidrachm of chloroform taken by the stomach, is not more than equal, in soporific effects, to 30 or 35 drops of laudanum. In doses of 50 to 75 drops (about 15 minims,) I have given it every half hour for several hours together. It differs from the opiate preparations in the promptness of its hypnotic action, the much shorter period of its duration, a less degree of cerebral oppression, and the absence of all stimulus to the circulation. It might be called a 'diffusible narcotic,' comparing in this respect with opium as ammonia does with alcohol. To produce much effect with it, repeated doses, at short intervals, will be necessary.

The pungent property, already alluded to, causes it to require plentiful dilution, which is, of course, facilitated by the addition of some demulcent. Perhaps the orgeat syrup is the best. Every fluidrachm of chloroform should have at least two fluid ounces of water with it when taken; and it will need, if in ordinary gum mucilage, considerable agitation to resuspend the particles immediately before swallowing. When taken in aqueous mixture alone, however, unless in very small doses, it produces nausea with some persons. This is entirely prevented by the addition of a strong aromatic, or, still better, by giving the chloroform in aromatic tincture. From the ready solution and kindred action of camphor with chloroform, their combination has become a very common one. For many purposes, however, a still better preparation is a sort of chloroform paregoric, or tincture of chloroform, *e. g.*—℞. Chloroform f 3 ij; sp. camph. et tint. opii. aa f 3 iss; Ol. cinnamom. gtt. viij; Alcohol f 3 ij. M. et fiat tinctura. Dose, from 5 to 30 minims, or more, as required.

The most admirable effects have been witnessed from the administration of chloroform, as above combined, in malignant cholera. In the summer of 1849, my attention was first called to it while attending a very severe case of cholera with the late Prof. W. E. Horner. The prompt and signal restoration accomplished in that case, from a state of collapse, was evidently due to the exhibition by Prof. Horner, every five minutes, of a few drops of a combination of chloroform, oil of camphor, and laudanum, with ice, and warm frictions, externally. The writer's conviction was very strong that the short interval between the doses was an important item in the treatment.—[*American Jour. Med. Sciences.*

Chloroform in Hypochondriasis.

At a meeting of the College of Physicians in Ireland, in June, Professor Osborne stated that he had lately, in two cases, opportunities of observing a peculiar effect of chloroform taken into the stomach, in controlling the depressing and saddening feelings belonging to hypochondriasis. Considering that state to be produced by a depraved sensibility of the stomach or colon, and frequently of both, he was led to the internal employment of chloroform, which being promptly volatilized at the temperature of the stomach and before long being decomposed by the process of digestion, ought to be expected to act as a local anæsthetic, even though the dose should not be sufficient to produce any change in the functions of the brain.

The first patient who presented the conditions requisite for this experiment was a married woman, and a mother aged 33, of a querulous disposition, as well marked by her countenance, and who had been on a former occasion under his care, and that of another practitioner, complaining of a variety of pains in the abdominal region; and she, although relieved, still persevered in the belief that she still had some internal disease. She now appeared to labour under spinal neuralgia. After this had yielded to the application of nitrate of silver to the spine, and some other remedies, she still continued to feel an indescribable sensation of depression, and of internal annoyance, no longer to be referred to the spinal nerves—no cause for it could be detected. The appetite was good, and the action of the bowels regular. In two days after taking ten drops of chloroform thrice daily, she *began, for the first time, to acknowledge that she was better*, and in a few days afterwards was free from complaint. The second case was that of a caretaker in the Linenhall, aged 29. He complained of the deepest dejection of spirits, and of an uncontrollable aversion to any exertion. His countenance expressed sadness and moroseness. All the functions were in a healthy state, except that the heart's action became tumultuous when excited by either motion or exercise; but no organic disease could be detected. He stated that he had not been addicted to excess of any kind, and that there was no cause for his lowness of spirits. He got valerianate of zinc, and also pills to regulate his bowels; but, although the heart's action became steadier, yet the depression and inward sensation continued the same. After taking twenty drops of chloroform thrice daily for two days, *he began to confess, what he never did before, that he was better*. His sleep being still unsatisfactory and disturbed by disagreeable dreams, he was ordered to take forty drops at bedtime. He now stated that he slept with a pleasing dream of seeing his brother, who had gone to America. During the two following nights he took the same dose; and although the sleep was interrupted by the disturbance attendant on a man in a dying state in the same ward, yet when he did sleep his dreams were pleasant, being usually that he was enjoying the company of the most agreeable of his friends. He was dismissed with a marked improvement in his countenance, and *acknowledging that he was better*.

These cases are selected as being nearly free from complication. It must, however, be recollected, that there are several other uses to which chloroform may be applied in affections of the stomach and intestinal tube, but this appears to be one of the greatest value, insomuch as no other medicine can be

named which in this respect seems to come into competition with it. How far the effect is permanent and capable of completely removing the sensation of hypochondriasis, or in what degree it may require to be resumed or repeated, Dr. Osborne as yet has not been able to determine; neither did he think it necessary before this association to clear himself from the absurdity of bringing it forward as a universal *napenthes*.

With regard to the mode of administering chloroform internally—as its specific gravity is nearly 1.5, and it is insoluble in water, it must, when swallowed, soon settle at the bottom of the fluids in the stomach, and although it is volatilized, yet being covered, and under pressure, it may remain in contact sufficiently long to irritate the stomach at the part of the contact, as was proved to take place in the case of camphor by Orfila.

Hence, then, it is desirable that it should be diffused or diluted before it is taken. In aqueous mixtures, even when shaken up, it soon falls, so that it cannot be equally measured out, and its pungency is annoying even to the mouth. In gum Arabic mucilage it soon collects in larger globules at the bottom of the bottle, covered with a white powder of arabine which it has precipitated. To obviate this inconvenience, it has been proposed to give it suspended in syrup, but to make a syrup of the same specific gravity 1009 grains of sugar to the ounce of water would be required, while that of the Pharmacopœia contains only 874 grains; besides, chloroform has a heavy sweet taste which renders the addition of syrup peculiarly objectionable.—The menstruum which Dr. Osborne used in the above and other cases was the decoction of Irish moss (*carrageen*.) With this chloroform forms a uniform mixture, and in the proportion of ten drops to the ounce they remain for an indefinite time without separation taking place. The taste of the mixture is sweet like that of a heavy syrup, to relieve which it may be well to add a few drops of some aromatic or bitter tincture.

Another mode of avoiding the pungency of chloroform, is by giving it in combination with tinctures, as it is soluble in alcohol, and remains dissolved even in proof spirit. The following is a specimen of this kind of formula, and is peculiarly grateful to the taste, and susceptible of various additions and alterations, according to the requirements of the individual cases—Chloroform, and tincture of ginger, of each half an ounce; aromatic spirit of ammonia, two drachms. Mix Twenty-five drops to be taken thrice daily in a wineglassful of milk.—[*Dublin Quarterly Journal*.

Local Anæsthesia—Employment of Hardy's Instrument.

The first essay with this instrument was made by M. Nela-ton, at the Clinique, upon a girl who was suffering from abscess of the axilla, and from a small wound upon the back of the wrist, both extremely painful. The instrument was composed of a caoutchouc reservoir of air adapted to a copper pump, made to receive the sponge for the chloroform. A valve at one extremity permitted the air to enter the instrument, which terminated in a caoutchouc tube. The first application of the chloroform upon the tumour of the axilla produced an insensibility which lasted three hours, during which time the part could be handled and examined with impunity. In the second essay, M. Dubois plunged a knife into the abscess, which was ripe, after the employment of the chloroformic fumigation. The patient declared that she was not conscious of pain, and became aware of the fact that the abscess was opened only by touching the part with her hand. From this time she had no more pain. The little wound on the wrist, fumigated in the same manner, remained quite insensible.—[*Med. Times and Gazette.*

Non-Recurrence of Dysentery.

We noticed in our last No. Prof. Flint's suggestion in reference to the non liability of persons to a second attack of Dysentery. We now make, from the St Louis Medical and Surgical Journal, the following extract, showing the views of Dr. A. F. Jeter on the subject.

"Seeing, however, that a number of journals have published the article referred to, and knowing the importance that justly attaches itself to whatever emanates from Dr. Flint, I have thought it might be proper to give a few facts, and thereby prevent the permanent introduction of an error into medical literature.

"In 1846, I was the subject of an attack of dysentery, and judging from the amount of pain attendant, thought it a severe case. In 1847, however, I had an attack more violent and protracted than the one of the former year. Since that season I have practiced every year, where it prevailed epidemically—during which time I have had four additional attacks, two of which were of a character so grave as to render recovery for a time doubtful. So you will perceive, I have six several times in my own person, and in different seasons, suffered severe and unequivocal attacks of dysentery. Although I have kept no record of the number of cases, yet more than thirty instances of "recurrence" of dysentery among my neighbors and acquaintances, now occur to my memory, in some of whom the disease has occurred three or four several times. I have recently (Nov. 10, 1853,) at-

tended four members of a family severely afflicted with dysentery, all of whom I treated for the same disease, two years ago, and another member of the same family living in an adjoining county, has had the disease every summer for the last five. Inasmuch as the attack I had in 1847 was worse than the one of the preceding year, I was for a time inclined to the belief, that one occurrence of dysentery might render each succeeding attack worse; but farther acquaintance with the complaint has not confirmed the opinion; but that one attack does not destroy our susceptibility to the 'recurrence' of dysentery, let the foregoing facts declare. As regards dysentery proving a safeguard against other diseases to some extent, as Dr. Flint seems to imply, it may be remarked, that a considerable portion of our physicians believe in the malarious origin of dysentery, and that their principal argument in favor of their doctrine is founded in the fact, that in this district, at least, dysentery is almost uniformly followed by intermittent fever, which comes on as usual at intervals, during the remainder of the season.

"The above statement is concurred in generally by the medical men in this region, so far as I have made inquiry. Among others I may mention Drs. White, Bailey, Kibby, and Taylor, all of whom are reputable practitioners."

On the Dangers of Cauterization in Purulent Ophthalmia.
By M. DESMARRES.

If there is one part of surgery in which the rashness of ignorance and the danger of limited knowledge is exemplified more than in others, it is the treatment of inflammations of the eye. We have long been struck with amazement at the routine practice adopted by many practitioners who were otherwise judicious, in this speciality. Medical men are not ignorant of the differences in texture of the component parts of the eye and of the influence which these structural diversities must exert upon pathological processes, but they seem to be forgetful of them. Whatever the disorder implicating the external tunics, it is met by the inevitable caustic. We have been led to regard the indiscriminate use of the nitrate of silver as a great evil, and we gladly give admission to the following remarks on the subject by M. Desmarres, whose opinions, deduced from an experience which probably equals that of any living ophthalmologist, are entitled to the highest respect:

"A child two weeks old was brought to my consultation, with purulent ophthalmia, which commenced in the right eye, and had existed for eight days. The cornea was gone, there was hernia of the iris, and the lens had escaped.

"On the second day of the disease, according to the mother's account, there was much suppuration, the lids were swollen, but the

cornea was clear. The physician who was summoned cauterized the lids, and from that moment the swelling diminished, and the eye became perfectly white.

"Six days afterwards the left eye became involved; the conjunctiva was red, the lids tumefied, and pus escaped freely when they were separated. I feared that cauterization would destroy the cornea of this eye also, and accordingly scarified the conjunctiva of the globe and lids freely, and directed frequent injections of a feeble collyrium of alum. The next day the scarifications were repeated; the swelling had nearly disappeared, and on the third day the inflammation was completely subdued.

"The pencil of nitrate of silver is a two-edged sword, and in some hands a most dangerous weapon in inflammations of the eye. My experience on this point makes me perfectly positive, and I do not hesitate to affirm that it would be well if this remedy had never been employed in eye diseases, so greatly has it been abused. Whether the cornea is the seat of abscess or ulceration, the disease chronic or acute, the iris protruded or not, the caustic is applied, without caution, the surgeon forgetting that a very different treatment is requisite and that the use of caustic is full of danger.

"A patient is suffering from catarrhal ophthalmia—caustic is applied whether the cornea is involved or not, whether or not it is capable of resisting traumatic inflammation.

"But it is in purulent ophthalmia, especially, that the greatest abuse is made of the solid nitrate; and it is in this affection that it produces the most disastrous consequences.

"If the conjunctiva is cautiously touched, in points remote from each other, in the incipency of the ophthalmia, benefit results, for we then produce a relatively slight traumatic ophthalmia for a most dangerous inflammation. But when the solid caustic is applied extensively after pus has begun to form, and there is considerable tumefaction, the mucous membrane being pale, and especially if there is no certainty that the cornea is not involved, then, certainly, the eye is exposed to the risk of destruction in a few hours. I have often witnessed this melancholy result, but never in a more striking instance than that of a young man who had already lost the left eye by purulent ophthalmia, and whose right eye was invaded by the same disease. At a consultation at which I was present, there apparently existed only an intense conjunctivitis, without appreciable alteration in the cornea; vision was perfect. The palpebral conjunctiva was freely cauterized. The next day the cornea was completely destroyed, the iris was prolapsed, and the lens escaped the moment an attempt was made to separate the lids.

"My aim, in these remarks, is simply to induce practitioners to be cautious in the use of the nitrate of silver, and if I attain this end I shall be well satisfied. I am convinced that cauterization with the solid nitrate is often dangerous, and that it is a remedy which cannot be employed too cautiously. I know that many surgeons will exclaim against this doctrine, and assert that they have cured this and that

affection, and have met with no accidents. I reply that I, like themselves, and, assuredly, oftener than they, have had occasion to judge of the effects of this remedy, and fortified by my experience, I am certain that the *lapis infernalis* should be applied in rare cases, and with the greatest reserve.”—[*Gaz. des Hôpitaux*, and *Virginia Med. and Surg. Journal*.]

EDITORIAL AND MISCELLANY.

BIBLIOGRAPHICAL.

Pneumonia : its supposed connection, pathological and etiological, with autumnal fevers ; including an inquiry into the existence and morbid agency of Malaria. By R. LA ROCHE, M. D., &c., &c. Philadelphia : Blanchard & Lea. 1854. 8vo., pp. 502. (For sale by T. Richards & Son.)

It is always to us a source of much gratification to have to chronicle the appearance of a work altogether American, and in the present instance the pleasure is enhanced by the consciousness that the production must redound very much to the honor of our medical literature. The work before us is decidedly one of the most erudite which has emanated from the American press, and would do credit even to an encyclopedic German. While we thus freely accord merited praise to the distinguished author's learning, we regret that we cannot agree with him in the conclusions he deduces from his patient investigation. That Pneumonia, as it prevails in Northern regions, may be, and is, generally, a simple phlegmasia, recognizing no connection whatever with autumnal fevers, we do not deny ; but that pneumonia, as seen in this section of the country, especially for the last seven or eight years, is intimately connected, pathologically and etiologically, with our fevers, termed malarial, is a fact too well established to be set aside by theory or by any array of written authority. We know of no physician of respectable standing, who has practised medicine for twenty years in this part of the country, who is not fully satisfied on this point, and who has not modified his treatment accordingly, and most manifestly to the advantage of his patients. The history of medicine is worth but little if it has not taught us that the type of diseases varies from time to time, and that the treatment found to be most successful for an affection in certain localities and at certain periods, may prove the reverse in other places and at other epochs. We believe that there is no point in which the sagacity of Southern practitioners stands in bolder relief than in the readiness with which

they have detected the peculiarity or the change of type to which we refer, and the success with which they treat pneumonia since they have recognized its connection with our fevers.

We regret that our limits do not allow us to go into a minute examination of the grounds upon which the learned author predicates his views. We hope, however, to be able to do so at some future time, as the subject is one of vast importance and should be freely and fully canvassed.

A Treatise on acute and chronic diseases of the Neck of the Uterus ; illustrated with numerous plates, colored and plain. By CHARLES D. MEIGS, M. D., Professor, &c., &c. Philadelphia : Blanchard & Lea. 1854. 8vo., pp. 140. (For sale by T. Richards & Son.)

We are much indebted to Prof. Meigs for having published in a separate volume this interesting and valuable monograph, originally comprised in the Transactions of the American Medical Association. This work will add another wreath to the brow of our distinguished countryman, and prove eminently useful to the profession.

Homœopathy fairly represented. A reply to Professor Simpson's "Homœopathy" misrepresented. By WM. HENDERSON, M. D., Professor of General Pathology in the University of Edinburgh. Philadelphia : Lindsay & Blakiston. 1854. 8vo., pp. 302. (For sale by McKinne & Hall. Price \$1 25.)

We noticed in our last the work of Prof. Simpson upon Homœopathy. We have now to direct attention to the reply of his colleague. Prof. Henderson is evidently fretted, and winces at the castigation received. A considerable portion of the work is devoted to the biography of the "persecuted" Hahnemann. Whatever others may think of the argumentative parts of the book, we regard it a complete failure. Prof. H. is, however, a spirited writer, and has probably done as well as he could under the circumstances. Those who have read Simpson ought certainly to read Henderson.

The Transactions of the American Medical Association—vol. 6. 1853. 8vo., pp. 870. (For sale by T. Richards & Son.)

We have been unusually late in receiving this volume of Transactions, probably in consequence of some error of address. It is by far the best volume yet issued by the Association, and reflects great credit upon the contributors to its pages. We understand that it can be purchased for \$3—a small sum for a work which ought to be patronized by every physician in our country. It contains, besides the

Minutes of Proceedings and the Reports of Committees, the following papers :

On the Agency of the Refrigeration, produced by upward Radiation of Heat, as an exciting Cause of Disease—by Dr. G. Emerson.

On the Results of Surgical Operations in Malignant Diseases—by Dr. S. D. Gross.

Report on the Epidemics of Tennessee and Kentucky.—by Dr. W. L. Sutton.

On Acute and Chronic Diseases of the Neck of the Uterus—by Dr. Charles D. Meigs.

An Inquiry into the Nature of Typhoidal Fevers, based upon Considerations of their History and Pathology—by Dr. Henry F. Campbell.

On Coxalgia, or Hip Disease—by Dr. Alden March.

On the Surgical Treatment of Morbid Growths within the Larynx, illustrated by an Original Case and Statistical Observations, elucidating their Nature and Forms—by Dr. Gurdon Buck.

On the Sympathetic Nerve in Reflex Phenomena—by Dr. Henry F. Campbell.

Prize Essay. The Surgical Treatment of Certain Fibrous Tumours of the Uterus, heretofore considered beyond the Resources of Art—by Dr. Washington L. Atlee.

Prize Essay. The Cell: its Physiology, Pathology, and Philosophy; as deduced from Original Investigations, to which is added its History and Criticism—by Dr. Waldo J. Burnett.

We return thanks for the following interesting papers—some of which we hope to notice hereafter :

History of the Epidemic Yellow Fever at New Orleans, La., in 1853. By E. D. Fenner, M. D.

A Report on the Health and Mortality of the City of Memphis, for the year 1853. By Charles T. Quintard, A. M., M. D.

A Report to the Indiana State Medical Society, on Asiatic Cholera, as it prevailed within the State of Indiana, during the years 1849, 1850, 1851 and 1852; with Observations on the Laws which govern its progress. By George Sutton, M. D.

Eleventh Annual Report of the Managers of the State Lunatic Asylum of the State of New York.

Outlines of the Principles and Practice adopted in the Orthopædic Institution of Brooklyn. By Louis Bauer, M. D. and Richard Barthelmess, M. D.

On the Subject of Priority in the Medication of the Larynx and Trachea. By Horace Green, M. D.

Remarks on Throat Diseases and Consumption, and the newest methods of treating them. By Ira Warren, M. D.

Constitution and By-Laws of the Medical Association of Texas.

Constitution, By-Laws, Charter, &c, of the Medico-Chirurgical College of Philadelphia.

Catalogue of the Officers and Students of Starling Medical College, for the Session of 1853-4.

Address to the Graduates of the Kentucky School of Medicine, Session 1853-4. By R. Breckinridge.

Editorial Changes.—There have been of late quite a number of changes in the corps editorial of the medical press of the United States. Dr. J. B. McCaw has become associated with Dr. Otis as Editor of the Virginia Medical Journal. The Stethoscope has been sold by Dr. Gooch to the Medical Society of Virginia, and is edited by Drs. Atkinson, Haxall, Bolton, Lewis, Merritt and Cabell, a committee of the Society. Dr. Bennet Dowler takes the place of Dr. Hester, deceased, as Editor of the New Orleans Medical and Surgical Journal. The New York Journal of Pharmacy has passed from the hands of Dr. McCready into those of Dr. Thos. Antisell. Dr. Bell has retired from the Western Journal of Medicine and Surgery, which is now conducted by Prof. Yandell alone. Dr. S. R. Hollingsworth has now the supervision of the Philadelphia Medical Examiner, in place of Drs. F. G. Smith and J. B. Biddle. In consequence of the death of Dr. Howard, the Ohio Medical and Surgical Journal is edited by Dr. John Dawson. Dr. Joseph Parrish having retired from the New Jersey Medical Reporter, Dr. G. M. Butler has taken his place. Dr. G. S. Jones is associated with Dr. J. V. C. Smith in editing the Boston Medical and Surgical Journal.

We cordially welcome our new confreres, and hope that they may realize their most sanguine anticipations.

Necrological.—Our exchanges announce the death of R. L. Howard, M. D., Professor of Surgery in the Starling Medical College of Columbus, Ohio—of Dr. John Ester Cooke, formerly Professor of Practice in the Transylvania University—and of L. W. Chamberlayne, M. D., Professor of Materia Medica in Hampden Sydney College, Va.

Deaths from Scarlatina.—It is stated, that in 1852 there were 843 deaths from Scarlet fever in Massachusetts.

Lithotrity Forty-eight times on the same Patient.—Mr. Coulson recently exhibited to the Medical Society of London the bladder taken from a man aged 83, on whom lithotrity had been performed 48 times in the course of twenty years.

[We take pleasure in calling attention to the following circular. Dr. Wooten is an able man, and will doubtless present the profession a valuable work.]

TO PHYSICIANS OF THE SOUTH AND SOUTH-WEST.

The undersigned has in preparation a work on the Fevers which prevail in the South and Southwest; together with the Diseases of the Respiratory and Digestive Systems, with a view, in part, to examining their connections with each other, in ætiology and pathology, and the influences which they exercise in modifying the characters, special and general of one another, &c., &c.

In connection with this matter, I wish to procure all the correct information possible, concerning the Epidemic Dysentery which has prevailed so extensively, and severely, in many parts of the country for the last few years. I wish to know the circumstances attending its production, or origin—its relation to other diseases, which may have exerted an influence upon its character—what form, or type of disease, usually prevails in the localities of its occurrence—what were the peculiar, or special symptoms, or phenomena, which gave it identity of character, and distinguished it from the ordinary endemic inflammatory Dysentery,—and, in short, any thing of interest concerning it.

Physicians who have had opportunities of observing the disease, and studying its character, will confer a special favor by communicating to me, as early as convenient, the results of their observations.

My address will be, until the 15th of September, "Red Sulphur Springs, Hardin County, Tennessee." After that date, "Lowndesboro', Alabama."

Suit for Malpractice.—In the recent case of James McWha vs. Dr. Alexander McCandless, in Maryland, the decision of the court was rendered against the doctor, as follows: "That the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length of the other when treated; and if he did not, he was accountable for damages, just as a stonemason or a bricklayer would be in building a wall of poor materials, and the wall fell down, or if they built a chimney, and it should smoke by reason of a want of skill in its construction." Dr.

McCandless appealed to the superior court, who decided "that the implied contract of a physician or surgeon is not to cure or restore to natural perfectness, but to treat the case with diligence and skill. He does not deal with insensate matter, but has a suffering human being to treat, a nervous system to tranquilize, and a will to regulate and control. The ruling of the lower court is therefore set aside."

[*Stethoscope*.]

Prof. Mott's Letter.—The following letter from the venerable, and celebrated Mott, shows that he is making an effort to have his name disgorged from the greedy stomach of charlatanry, into which it seems, without his knowledge or consent, it has been swallowed. We give place to the letter with great pleasure, and as a consequence, the statement of the November number of the *Journal* stands corrected.—[*Ed. Ohio Med. and Surg. Journal*.]

NEW YORK, Dec. 26, 1853.

SIR:—Will you be so kind as to correct a mis-statement in the Nov. number of the *Ohio Medical and Surgical Journal*, of which you are Editor.

I never recommended Dr. Hartly as an Occulist or Curist. If he refers to me therefore, it is wholly unauthorized.

In various directions of our country, I find myself set forth in connection with Pills, Powders and Balsams, which I know as much of as I do of Dr. Hartly, as an Occulist.

I hope you will give me the pleasure of seeing your *Journal* more frequently hereafter.

Respectfully yours,

VALENTINE MOTT.

Guano in Cutaneous Diseases. By Dr. DESMARTIS, of Bordeaux.—Guano is very worthy of the attention of physicians as a remedy in skin diseases. I have experimented with it, and have been struck with the results which I obtained. In a case of pemphigus, the eruption was permanently cured by two or three baths containing sixteen ounces of guano in solution; and I have observed several cases of tinea completely cured by lotions of this substance.

I have also seen cases of psoriasis, and of chronic eczema that had been called incurable, which yielded to a persevering employment of this remedy. By means of collyria, consisting of solutions of guano, I have succeeded in curing radically extensive opacities of the cornea. Leucomas, and even thick albugos have disappeared under this treatment, and the eye has regained its natural transparency.

I have found guano of great service in arresting the excessive supuration and degeneration of tissue occurring in ulcerations of scrofulous subjects; in these cases, however, the lotions, injections and baths, should be very dilute, in order to avoid pain and severe irritation in the ulcerated surface.

In open cancer, guano causes great pain unless it is very much diluted; it acts as an astringent, however, in contracting these ulcers,

and prevents the development of the erysipelas which is so frequently manifested in their vicinity.

Although the curative agents contained in guano enter the economy by absorption, yet it is still proper to administer internal remedies; the iodide of sulphur in the case of favus; Donovan's solution, or arsenious acid in certain grave herpetic affections; iron and iodine in scrofula; mercury and iodide of potassium in syphilis, etc., and purgative in all cases.

What is the active principle in guano? We cannot say with precision. It contains potash and lime, which may act as detergent and siccative; ammonia, which stimulates the skin; oxide of iron, an excellent tonic; a fatty substance; uric, oxalic and phosphoric acids.

When guano is prescribed in skin diseases, sixteen ounces are usually dissolved in a bath.

In lotions, we must be governed by the inflammatory condition of the diseased parts. From one to four ounces of guano to a pint of water in the proper proportion. The lotion should be boiled and filtered. It then assumes a clear golden color. An ointment may be made with a drachm of guano to an ounce of lard.

M. Recamier was the first to recommend baths of guano; that celebrated practitioner has employed them with the best results. For my own part, I am convinced that they are destined to render immense services, not in the place of sulphur baths, or as succedanea to these; we believe that both remedies have their distinct applications.—*Revue Therapeutique du Midi. Western Lancet.*

Fistula in Ano, treated by Iodine Injections. By M. BOINET.—At a meeting of the Institute of August 1st, M. Boinet read a memoir, designed to demonstrate the efficacy of injections of iodine in the radical cure of fistula in ano, whatever their form, extent, or complications. Seven cases are detailed, which offer examples of almost every variety of fistula—complete, blind, or incomplete fistula, deep fistula, with loss of substance of the intestine, and fistula in tuberculous subjects. These observations tend to prove that iodine injections may be advantageously employed in all cases of fistula, but especially in those in which the method by incision is dangerous or ineffectual, such, for example, as extend deeply, or occur in phthisical patients, or depend upon some alteration of the ischium, the coccyx, or sacrum.

The advantages of iodine injections over the ordinary method, consist, in obtaining a cure more easily, and in a shorter time, in avoiding pain and the danger of hemorrhage, and in permitting the patients to continue at their usual avocations.

The following are the conclusions of the memoir:

1. Iodine injections, properly administered, can cure radically all cases of fistula, whether complete or incomplete, simple or complicated.
2. They cure them more promptly than the method by incision commonly employed, and with less danger.
3. They produce no pain, and are easily practised.

4. They permit patients to follow their occupations, and relieve them from daily painful dressings.

5. They are applicable to all cases, and especially to those in which incision or excision are dangerous or impossible.

6. They do no harm, even if they are ineffectual, and do not prevent the subsequent use of the knife. It is therefore rational to employ them before having recourse to a cutting instrument.—[*Gazette des Hôpitaux. New Orleans Med. and Surg. Jour.*]

New method of Testing Quinine. By Signor PAGLIARI.—Signor Pagliari, a chemist of Rome, the inventor of a new hæmostatic compound, has published in the *Corrispondenza Scientifica* of Rome, a procedure for determining the purity of the compounds of quinia with the greatest exactness; and, after repeated experiments, he has rendered the execution of his method extremely simple.

This method consists in heating a small quantity of the preparation of quinine in a spoon over burning charcoal. In a very short time the powder melts, leaving a residue of which we shall speak presently. The examination of this residue must be conducted with the greatest care, for its peculiar tint serves to characterize each compound.

Characteristics presented by perfectly pure sulphate of quinine—*residue of clear ruby colour*; very pure quinine—*residue of the colour of oil of sweet almonds*; citrate of quinine—*residue of clear citron colour*, with excess of acid, *dark citron colour*; valerianate of quinine—*residue of the colour of the preparation itself*.

When either of these preparations is adulterated with foreign matter, the residue, after fusion, will be wanting in polish and transparency, and will present a blackish, porous appearance. If they are mixed with cinchonine or salacine, they become opaque; to be certain of the presence of salacine, concentrated sulphuric acid may be added, which will give rise to a red colour.

These trials should be made with about a half a grain of the salts in question. The author hopes that these simple experiments will add one more obstacle to the falsifications of the salts of quinine.

[*Virginia Med. and Surg. Jour.*]

Exsection of the entire Ulna.—The American Medical Monthly for March contains the report of an exsection of the entire ulna by Prof. Carnochan, which resulted favorably.

“The functions of the arm are preserved in a remarkable degree of perfection. The power of prehension is unimpaired; and flexion and extension at both the elbow joint and at the wrist joint can be performed with facility—supination and pronation can also be effected—abduction and adduction at the wrist joint can be performed; as also flexion and extension of the fingers, as before the operation; sensation and nutrition are as perfect as on the arm and hand of the opposite side.”

New Instrument for injecting the Perchloride of Iron in Cases of Nævus, &c.—During the last two months we have witnessed several trials of the acid solution of the perchloride of iron, as an injection for producing the coagulation of the blood in nævus, etc. In more than one instance, very severe inflammation of the part has followed its use, and in one, a nævus on the scalp, sloughing, and even exfoliation of a portion of bone resulted. There appeared, however, some reason to think that the powerful agent had been too freely used, and that, had a much smaller quantity been injected, the promises made by its introducers might possibly have been borne out. Other objections also applied to the method and instruments in ordinary use; they required that an opening should be made for the introduction of the syringe; and the flow of blood produced by the puncture, to say nothing of the smallness of the aperture, sometimes rendered the latter difficult of accomplishment. We have been shown, during the past week, an ingenious little instrument contrived by Mr. Fergusson, of Giltspur-street, which looks likely to aid very materially the efficient accomplishment of this procedure. It consists of a very small glass syringe, the point of which terminates in a fine platinum tube. This tube is encased in another one, about a quarter of an inch longer than the first, ending in a sharp trocar-like point, and having, near its extremity, an oblique opening in one side. By rotating the outer tube on the contained one, their apertures may be made to correspond or otherwise, at the will of the operator. Thus, then, the necessity for two instruments is quite done away with. The syringe having been charged, the operator rotates the outer tube, so as to conceal the orifice of the inner one entirely, and protect it from the ingress of blood. In this state the instrument is passed into the centre of the tumour, and, having been stirred about as much as may be thought desirable, the tube is turned back, so as to expose the orifice; and the piston being at the same moment depressed, a drop or two of the solution is squeezed out. It may be supposed, that the smallness of the whole instrument, and the diminutive size and oblique position of its aperture, will afford considerable guarantee against the injection of too large a quantity, while on its advantages, in case of employment, it is scarcely necessary to insist.—[*Med. Times and Gaz.*]

Remedy for Poisonings.—A French chemist recommends, in cases in which the nature of the poison taken is unknown, the immediate use of an emetic—after which, equal parts of calcined magnesia, pulverised charcoal, and sesqui-oxide of iron (precipitated carbonate of iron of our shops will answer), should be freely administered in water. This combination may neutralize most of the mineral poisons, especially those of arsenic, mercury, and copper.

The Minutes of the Proceedings of the recent meeting of the Medical Society of the State of Georgia were received too late for this number.

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ORIGINAL AND ECLECTIC.

ARTICLE XVII.

On Epidemic Dysentery. By D. C. O'KEEFFE, M. D., of
Greenesboro', Georgia.

Et primum de dysenteria loquemur, horribilē isto, ac consuetissimo his regionibus malo, quod plures hic homines necat, quam affectus quispiam alius præter naturam.

Nearly two centuries and a half have elapsed since Bontius (de Medicina Indorum) used the above language in his history of oriental dysentery, and the same sentiment may, not inappropriately, be entertained in regard to its prevalence in many sections of our own country at the present day. For many years past, the popular, as well as the professional mind, cherished a well grounded fear of pneumonia and typhoid fever visitations; but of late, all of this trepidation has, for the best of reasons, been reserved for dysentery.

This disease has prevailed in an epidemic form from time immemorial:—Thus, Hippocrates (1st Book of Epidemics,) alludes to it in these words. "In the summer and autumn dysenteries, tenesmuses, and lenteries were complained of; so were bilious purgings, of a thin, crude, griping nature, and much in quantity. Others again were watery; and many complained of painful fluxes that were also bilious, watery, ragged, purulent, and strangurious; not from any fault in the kidneys, but from one humor or complaint coming upon another. They likewise

vomited bile, and phlegm and indigested food. They sweated too, in general, the humidity being great everywhere. To many these things happened without a fever or confinement, to others with a fever as we shall see hereafter. Where all that is here mentioned happened, they became consumptive, not without pain." In this record of the Coan sage, no one will fail to recognise the principal features of epidemic dysentery.

Again, among the earliest medical records of our own country, and during the prevalence of the devastating epidemics of yellow fever, that occurred in different parts of the country about the close of the last and beginning of the present century, we find that epidemic dysentery existed in many states of this Union. In Hanover, N. H., the whole number of inhabitants in the summer of 1797, including members of the college, (Dartmouth) was 520; of this number 203 had dysentery, and 16 died.*

In 1805, New York and vicinity suffered from its visitation, as we learn from the following paragraph: "In delineating the character of the season just passed away, it ought not to be omitted that intermittents were extremely prevalent in this city (N. Y.) and its vicinity, during the last spring, and throughout the month of June. With the beginning of July, the dysentery appeared, and continued to be more or less epidemic till the middle of September. In some parts of the country, we learn that this disease raged for many weeks with great violence and mortality."† Heberden informs us that "dysentery is common in camps, but does not often infest those who live in healthy places with the conveniences of life about them, except at certain seasons, when it becomes epidemical, particularly among children, old women, and infirm men, and it is then fatal to many." (Commentaries.) It is in tropical climates, however, that this disease displays unusual virulence; in Bengal 13,900 persons were attacked with dysentery from 1820 to 1825. During a series of years, when the troops (Bengal army) were not actively employed in the field, the annual rate of admissions in hospitals was 35 per cent. of the effective strength.‡ In London, during the seventeenth century, the number of deaths set

* Medical Repository, 1804.

† Ibid, 1805.

‡ On Dysentery, its Forms and Consequences, in Warm Climates, especially in India. By James Annesley, Esqr.

down in the bills of mortality was never less than 1000 annually, and in some years exceeded 4000. For five and twenty years together, viz., from 1667 to 1692, they every year amounted to above 2000. During the last century, the number gradually dwindled down to twenty; and this decline is alleged to be cotemporary with that of the plague, agues, and continued fevers, and is ascribed by Dr. Watson to the great fire of 1666, which consumed every thing that was efficient in producing these several disorders.

Thus, it will appear that the disease we are considering has existed in an epidemic form from the earliest dawn of medicine, and for aught we know to the contrary, may be coeval with the history of the human race; that no country is exempt from it, but that its ravages are most destructive between the tropics.

The first notice of its appearance in this State was published by Dr. H. F. Campbell, of Augusta, under the caption:—"Cases of an unusual form of fever and dysentery," that had occurred in his practise in the month of July, 1851, and proved of a very malignant character.* Dr. J. S. Weatherly, a few months afterwards, favored the profession with an account of an endemic that commenced about the 1st of June, and swept over the country (Gordon and Cass counties) "with a baneful and noxious influence." Scarcely a family escaped in the visited region, "and many, particularly the very young and very old, succumbed to it."† Dr. W. C. Brandon also reported the prevalence (in 1851) of epidemic dysentery in Floyd and adjacent counties of this State and Alabama, which commenced in the early summer months, but presented nothing to distinguish it from ordinary sporadic dysentery until the month of October, when its type was changed, and it invariably assumed a typhoid character.‡ During the year 1852, we heard of its ravages in various parts of this state, but have seen no authenticated account of it.

In our own practice, sporadic cases appeared in the spring and summer months of 1851, and although not numerous enough to indicate an epidemic prevalence, still it was noted that the tendency to bowel affections was more strongly marked than

* Southern Medical and Surgical Journal, September, 1851.

† Ibid, December, 1851.

‡ Ibid, March, 1852.

usual. Pulmonic affections are generally the gravest forms of disease in our section during the spring months, and after summer sets in, diarrhœa and sporadic cases of typhoid fever. During the spring of 1852, pulmonic disease was unusually rare, and we were, at the time, impressed by the fact that the season heretofore devoted to the treatment of the latter, was now occupied in the management of dysentery. This substitution of intestinal, for pulmonic disease, is very remarkable in tropical countries. British physicians who visit India are struck with the difference in the morbid influence of atmospherical vicissitudes in that climate; an exposure which, in Great Britain, would produce a catarrh, a pleurisy or pneumonia, would be followed in India by an intestinal derangement—probably dysentery. Would that *we* could appreciate the changes in our climate that produce this substitution!

About the middle of October (1852) the cases began to multiply, and to assume a graver character. On the 21st, we saw Mrs. M., æt. 35, and her son æt. 17, who were seized about the same time with acute dysentery; in six days from its inception, six white members of this family were prostrated with the disease, two only remaining intact. From this time till the 1st of December, our whole time was occupied with it; there were few instances of an isolated case occurring in any family, and this gave rise to the popular opinion that it was contagious.

In the following year (1853) it set in early in summer and continued, though not extensively, till late in autumn, the cases being more isolated, (at least in our county, but not so in others) and more manageable, with a few exceptions, than the preceding year. It is proper to state, however, that in other parts of the State, it prevailed with unprecedented malignity.*

Symptoms, &c.—For convenience of description, and not upon any pathological grounds of difference, dysentery may be divided into two species, viz.—(1) *Acute*, and (2) *Chronic*.

SPECIES 1.—Acute dysentery presents two distinct aspects, viz.—(A) the *sthenic* or highly inflammatory variety, charac-

* A Medical friend who has practiced Medicine upwards of forty years in this State, informs us that he had never seen dysentery prevailing in an epidemic form until within a few years.

terized by high febrile action ; and (B) the *asthenic* or *typhoid* variety in which the inflammatory action is of a low grade and the vital powers very much depressed.

(A) The sthenic variety of acute dysentery may be profitably considered as presenting two degrees of existence, viz.—(1) the *mild*, and (2) the *severe* form—the intermediate degrees being almost as numerous as the subjects affected.

(1) The mild form of sthenic dysentery offers but few points for consideration. The stools are not frequent, consisting principally of mucus and serum, sometimes tinged with blood ; the pain and tenesmus may be considerable at the periods of evacuation, but there is entire ease in the intervals. There is seldom pain or tenderness in the abdomen ; no fever, and the tongue is generally of a normal appearance. A single cathartic, followed by an opiate, will, not unfrequently, cure these cases.

(2) The severe form of sthenic dysentery is surpassed in violence by few diseases. The following case, from Dr. Campbell's article already alluded to, so accurately represents this form of the disease as it occurred to us, that we take the liberty of inserting it in detail for the illustration of the symptoms :

“CASE 3rd.—Mr. E. A., aged about 35 years, was attacked with dysentery on the 14th of July. The passages were frequent and bloody, but not attended with much pain ; skin hot and dry ; pulse somewhat depressed, and 90 per minute. He manifested great depression of spirits. Prescribed 5 grs. of calomel with one gr. of opium every three hours, with laudanum and camphor in the intervals when the passages were frequent. The passages became less frequent, were dark and very offensive, but were followed by great prostration of strength. The calomel was omitted and 5 grs. of blue mass substituted, with acetate of lead, nut galls and opium after each passage. The discharges became less frequent, and the quantity of blood and bloody mucus was greatly diminished, but the prostration of strength was still very great. Fever continued without remission ; pulse 110 per minute. On the fourth day the skin is hot and dry ; thirst very urgent ; the dysenteric appearances had subsided from the passages, but they were thinner than previous. On the fifth day, the pulse is more rapid and weaker, the skin cooler and clammy ; the passages are very frequent and watery, having the appear-

ance of the washings of bloody beef, though sometimes darker, resembling muddy coffee; they contained no mucus, or fecal matter whatever. After consultation with Dr. J. A. Eve, we prescribed a large blister to the abdomen, and directed laudanum injections with starch in combination with acetate of lead after each evacuation. These injections were speedily rejected; the passages were very copious and passed involuntarily, often unconsciously. The pulse ranged from 130 to 140 per minute—every thing marked a state of actual collapse. Brandy and other stimulants were administered in large quantities, but the pulse did not respond. The passages continued large, and were often of clear water. A blister was applied over the sacrum, but without effect. All stimulants were of no avail, only serving to distract the last moments of the patient, which, without them, were characterized by great calmness and collectedness of mind. He died on the morning of the 7th day.”

(B) The asthenic or typhoid variety of acute dysentery does not present such a formidable array of violent phenomena as that just described by Dr. Campbell, and yet the issue, not unfrequently, is little more satisfactory. The subject is not so speedily hurried to his doom, but his fate is not the less certain; the tyrant dallies with his victim, engendering painful anxiety and flattering hopes, destined, with cruel certainty, to bitter disappointment.

This variety of the disease can be readily distinguished from the preceding. At its onset, it rarely happens that the typhoid features are present, for the first few days, if dysenteric symptoms appear, they are of a mild character; and it more frequently happens that they are absent, and nothing marks the case but a moderate fever, which, if it have fully declared itself, is apt to be of the typhoid type. In due time however—generally from three to six or eight days—the dysenteric condition becomes manifest, and continues to be the paramount element of the case during its whole progress.

The case maturely developed stands thus:—Temperature a little elevated, sometimes not at all; sometimes the skin is cool and clammy, moist, or dry and harsh. The tongue may be red from the beginning, or it may have been furred, then cleared off, and finally red, glazed and fissured—blood may be seen some-

times oozing from these fissures. The pulse is usually feeble, about 100 to the minute, and perhaps always exhibiting more or less remittency—the remission, however, is not as notable as in the severe sthenic variety. Thirst here is urgent, though, *à priori*, we might expect but little; nevertheless, there is an incessant craving for cold drinks—even ice is urgently demanded. The dysenteric distress is not as great as in the sthenic form—the stools are not as frequent, and consequently the tormina and tenesmus are not as troublesome; the character of the evacuations is also different—instead of being small, and of a muco-sanguinolent appearance, they are generally large, thin, dark, and offensive, resembling in colour and consistence a watery solution (or mixture) of snuff or soot, and not often presenting many traces of blood. Perhaps the most troublesome and persistent of all these symptoms is a tympanitic state of the abdomen, accompanied by an incessant and painful flatulence; this, in some cases, is an early developement, and harasses the patient beyond endurance. Delirium seldom occurs at any stage of this variety, but we have noticed a sluggish torpid state of the mind in nearly all.

SPECIES 2.—We have, now, according to our arrangement, arrived at that part of our subject which, to physician and patient, is the most perplexing feature of the disease under consideration. Chronic dysentery is a termination of the disease little preferable to death itself; for in many cases, after months or even years of unparalleled suffering—after the cup of affliction has, so to speak, been sipped to the dregs—the grave puts an end to this painful bondage. It is fortunate, however, that the chronic state is not a common termination of the disease in this part of the country; according to our observation, it would not exceed three per cent. of those affected with the acute species. In tropical climates, it is a not unfrequent disease among Europeans who visit those countries, and particularly among armies, and has its origin, no doubt, in irregular modes of life and dissipated habits.

It usually happens that after the subsidence of the inflammatory symptoms of the acute stage, the bowels are still loose—the patient may have six to twelve evacuations a day, attended or not with pain—the stools are moderately large, containing mu-

cus, and sometimes even a little blood. This condition may last several days, and sometimes two or three weeks; but under the use of opium and the astringent tonics, it will gradually improve, and convalescence will be finally established. Under this state of things, the patient will improve in appetite and strength, and yet it is not devoid of danger; for the least intemperance in food or drink will convert this otherwise safe condition into an acute disorder. But sometimes, and especially in feeble constitutions, this great diarrhœal drain will not yield as indicated, but continues for months producing great emaciation and debility. The following case will serve to illustrate this state of the disease.

A medical friend, of delicate habit and who was incessantly engaged in treating this disease, had an attack of sthenic dysentery in the summer of 1853; the acute symptoms were subdued by bleeding, purging, opium and astringents. In due time his appetite became normal, but did not gain any strength. About one month from date of seizure, there was great debility and much emaciation, having from one to three discharges a day; these were copious and loose, containing sometimes an ounce or more of thick tenacious mucus entirely separate and distinct from the fecal part of the evacuation. (It is thought that the debility attendant on such a state as this is owing to the impoverishment of the blood from the large proportion of fibrin these mucous passages contain.) There was no pain nor tenesmus, nor any other derangement, but an uneasy sensation, sometimes amounting to a pain, in the sigmoid flexure. The quantity of mucus in the stools gradually but slowly diminished until at a period of about four months from the time he was taken, it did not exceed a tea-spoonful. During this time, he improved but little in strength; and even now (seven months from its onset) he is feeble, though enabled to attend to the duties of his profession. In other cases, (and these are the most numerous) the patient is a constant sufferer. He may have three to six stools a day, attended with tormina and tenesmus, and containing more or less pus; he may have an occasional fecal evacuation entirely devoid of purulent matter, as well as of pain and tenesmus. These cases prove more rebellious to treatment, and are marked by a greater fatality than the preceding.

Complications.—Epidemic dysentery is said to be complicated with periodical and continued fevers, and that its epidemic prevalence is owing to its being associated with one or the other of these affections. It is urged, moreover, that when the disease is marked by high febrile action, or a low adynamic state of the system, other pathological elements co-operate with the colitis in the production of these phenomena. How far these suppositions are correct, our observation does not satisfactorily enable us to ascertain; but a limited number of autopsies has satisfied us that the intestinal lesion is sometimes extensive enough to give rise to the most intense symptomatic fever. In sporadic dysentery, but little, if any, symptomatic fever is generally found to exist; and hence it is inferred that when fever is present, it is not a simple but compound disease, for an uncomplicated colitis gives rise to but little constitutional disturbance. All this may be readily granted; but to give force and precision to this reasoning, we would require to know what *extent* of the intestinal mucous membrane was inflamed in these apyrexial sporadic cases, as well as in those marked by high inflammatory fever. It is well known that no disease presents greater diversity in degree than dysentery; in some, the inflammation may be limited to a small extent of the mucous lining of the rectum; in others, the disease may involve the whole track of the intestinal canal from the stomach to the anus. Is it not reasonable to expect a wide difference in the amount of constitutional disturbance produced by these causes? Such a result would be produced by a similar state of things in other parts of the animal economy. A case bearing on the point under consideration is subjoined:

A negro man, strong and athletic, aged 28, was attacked with dysentery on the 20th of May, 1853, and seen by Dr. Hall on the 22nd. His pulse was 100; skin hot and dry; discharges, consisting chiefly of blood, were passed every 30 minutes. 23rd. Pulse 120—other symptoms the same. Evening of 24th the pulse rose to 140, and the next evening it ranged from 140–150, and feeble. No permanent improvement took place and he died on the 13th day of his illness. Autopsy seven hours after death: Rectum highly inflamed and as thick as sole leather, and thickly ulcerated in small pits. The colon presented the same appearance as the rectum, except that the thickness had

diminished, and the ulcerations enlarged, varying in size from two to four lines in diameter. Above sigmoid flexure it presented a dark (nearly black) appearance, and continued so to and in the arch of the colon. In the ascending colon and cæcum the mucous membrane was of a deep blue colour throughout. Nothing noteable at the ileo-cæcal valve, but the whole extent of the ileum presented a blue congested appearance. The remainder of the small intestines and stomach were not as much diseased as the ileum, but they too were highly congested. Liver healthy.

Is it necessary in this case to invoke the aid of remittent or any other form of idiopathic fever to explain the exalted febrile action? Is not the intestinal phlegmasia (which, in extent of surface, has no parallel in the human system) amply adequate to account for it? But, although we deem it best to regard inflammation as the main pathological element of epidemic dysentery, and that the ends of treatment will be more securely attained by acting upon this opinion; yet we must admit that in a few cases the fever was of the remittent, and in many of the typhoid type. In one case only were the remissions more decided than ordinarily occur in most, if not all, inflammatory diseases; but there was no abatement of the dysenteric symptoms corresponding with the febrile remission. The sulph. quinia relieved this case of the febrile action, but the dysentery continued the usual time; the quinia was used in other cases of less marked remittency, but the phlegmasia was uniformly aggravated by it.

In many of our cases the typhoid condition was very prominent—so much so that if the colitis were not considered, the disease would be very readily denominated typhoid fever. Indeed, the evidence of the connection of typhoid fever with the dysenteric inflammation, was so palpable in some of our cases, that we must, though reluctantly, admit the fact. Our unwillingness to this admission arises from the apprehension that the name of typhoid fever may bias the practitioner's judgment, and induce him to rely on a palliative course of treatment, which, while it is usually the most judicious plan in this affection, is wholly inadequate to the management of dysentery.

We subjoin two cases tending to illustrate the connection

under consideration, the notes of which have been kindly furnished us by our friend, Dr. J. E. Walker, of this place.

Reuben D., aged 18, was attacked, August 28th, 1853, with a burning fever, preceded by a chill; furred tongue, great thirst and headache. The fever being remittent, he was treated with a mercurial followed by quinine, with mitigating effect on the fever. Dysentery set in on the fourth day of his illness, slight at first, but continued to increase. The bowels became very tender, and much distended, the tongue became dry, red and glazed; the discharges, at first composed of mucus and blood—resembling the washings of fresh meat—were attended with great tenesmus and pain, but very soon changed to the colour of snuff or rather soot. There were few shreds of mucus in the matter voided, but to me (Dr. W.) it appeared to be decomposed blood. About this time, tympanitis, harassing and persistent, came on which was but mitigated by anything that was used. Turpentine, nit. argt. per oram et rectum, chlor. soda, acet. plumbi, quinia, the saline and opiate treatment, were all used at different stages of the case with but temporary benefit, and he died on the 21st day of his sickness. This was but one of three deaths which occurred among the white members of this family in the course of a week or two from this disease, despite the well directed efforts and solicitous care of the attending physicians; the third case, however, was treated by the family, under the conviction that “doctor’s medicine did no good,” which, in this instance at least, was painfully true.

Thos. B., aged 19, was seen by Dr. Walker for the first time on the 24th of June, 1853. Had been sick ten days of a mild dysentery, which was at this time converted into a diarrhœa. Dr. W. found him with headache, feeble pulse—98 per minute, tender bowels, red tongue and considerable thirst; dejections now three to five a day, much reduced and great loss of strength.

There was a profuse perspiration on the surface almost the whole time, and the temperature was not elevated; the tenderness in the bowels, especially in the right iliac fossa, was prominent and persistent; there was considerable dullness of intellect, but no delirium. He was dismissed as convalescent on the 36th day from the first invasion. “I accord,” says Dr.

W., "to opium, turpentine and brandy the credit of cure in this case; quinia, although used freely, I doubt not, did little, if any good."

In the first of these cases, the febrile condition existed four days before the dysenteric action commenced, and in the last, the latter was replaced by a laxity of the bowels so common in typhoid fever. In cases like these, the dysenteric inflammation must be regarded an epi-phenomenon of typhoid fever, but very important in a therapeutical point of view. The complication with periodical fever, if it ever exist, is not of much practical importance, as the intestinal disease is the controlling indication for treatment.

It is said, also, to be complicated with typhus fever, an instance of which we have not seen, and to which we have nothing to say. Its connection with hepatic disease has been wonderfully magnified by Dr. James Johnson; but this connection, as well as all of this author's views of dysentery and hepatic derangements has been disproved by modern pathologists, though the treatment founded on these same views still lingers in the profession.

In one case, about the fifth day of the disease, there was a slight erysipelatous affection of the face, but soon yielded to appropriate remedies. Prolapsus ani is a not uncommon occurrence among children affected with dysentery, and proves a distressing complication.

Pathology.—"I am in every case inclined to regard inflammation rather as a sequence than a cause of dysentery, as a contingent effect, and not an uniform result."

Such was the teaching of that truly enlightened physician—a writer almost of the present generation—Dr. Johnson; and he contended strenuously for this pathology to the end of his life. The first links in the morbid chain of action, insists Dr. J., are a suppression of the cutaneous and biliary functions, and that the other conditions, viz., inflammation and its consequences, are effects from this first cause; the success of treatment, too, will depend, in his opinion, in the restoration of these functions to healthy action.

It is, of course, unnecessary to pronounce these views exploded at the present day; and we only mention them for the purpose

of introducing the remark, that although the pathology of Dr. Johnson is condemned, the treatment founded thereon is still in vogue with some practitioners.

Thus the observation is frequently heard that the liver is torpid, and overwhelmed with vitiated bile—that its secretions, viscid and poisonous as they are, are locked up in this vitally important organ, and that no peace can accrue to the organism until this peccant humor is removed. These views prevailing, it is easy to conjecture the remedy for this indication, and mercury is literally “thrown” into the stomach; so that instead of suffering this reputedly poisonous bile (which Dr. J. says is like boiling lead) to remain harmlessly in the liver, (which, for aught we know to the contrary, has little else to do during the presence of dysentery than to accomodate it) it is “thrown out” and “brought down” over an acutely inflamed mucous membrane.

We admit that this reasoning is sustained by all the force of venerated authority, yet we cannot but suspect it of a want of logical argument.

On the whole, we are disposed to take issue with the very name of the disease; dysentery conveys to the mind the idea that one symptom (tenesmus) constitutes the disease, and the fact cannot be gainsayed, that there is to some, something in a name. We therefore cheerfully agree with Sir G. Ballingall, that colonitis is a better name than dysentery—indeed, we would have it so named that its inflammatory nature should stand out prominently to the practitioner's gaze, so that for one moment, he could not lose sight of it. Nor should it be considered that the inflammation is confined to the colon alone, for as in the autopsy given previously, the small intestines and even the stomach may participate in the disease. It is unnecessary to give in detail the pathological appearances of this disease, for they may be all comprised under the head of inflammation and its consequences, variously modified according to the intensity of the disease and peculiarities of the patient.

Cause.—The etiology of this, as of most other diseases, is involved in much obscurity. Dr. Rush enumerates it among the summer diseases produced by miasmata, and so does Dr. McCulloch; Dr. Cullen records his opinion of it thus: “And upon the

whole, it is probable that a specific contagion is to be considered as always the remote cause of this disease." Heberden states that he has seldom seen two dysenteric patients in the same house; yet the belief in its contagiousness was prevalent in his time. Watson thinks it may depend indirectly on marsh effluvia, but that it prevails where there is no other evidence of the presence of malaria. Dr. Wood is of opinion that "exhalations from putrid animal substances, and vegetable miasmata are also among the causes." These conflicting opinions could be multiplied, and the truth of the maxim "*quot hominum tot sententiæ*," established; but it would serve no useful purpose. Of fifty epidemics of this disease in Europe, thirty-six occurred in summer, twelve in autumn, one in winter and one in spring. Of 13,900 persons attacked with dysentery in Bengal from 1820 to 1825, 2,400 were attacked in the cold season, 4,500 in the hot and dry season, and 7000 in the hot and moist season. Thus, it will be seen that epidemic dysentery usually prevails in seasons of the year favorable to the production of malaria, and yet there are some exceptions.

Dr. Wragg relates (*Charleston Med. Journal*, Nov. 1851), the extensive prevalence of dysentery in the vicinity of Charleston in the month of March, 1851, which existed in different localities during three seasons of the year, viz., winter, spring, and summer.

In the limits of our practice, the disease is of most frequent occurrence in autumn, though spring and summer are not exempt from it. Dr. Wragg excludes every other agency from the production of his epidemic, but some altered condition of the atmosphere.

Thus it follows that the same causative theory will not answer for all its epidemic visitations; for while in one, its miasmatic origin may be very plausibly entertained—the hygrometric and thermometric conditions of the atmosphere being favourable to that hypothesis—in another it would be wholly inadmissible. No one could suspect the agency of malaria in its production in the depth of winter.

On the 21st. of October, 1852, we saw Mrs. M., and son who were labouring under a severe form of sthenic dysentery; six days from this time, six of the white family were prostrated with it, two only remaining intact. The febrile phenomena reminded

one of remittent fever, but the remissions availed but little for the administration of quinine. This family resided on the brow of a hill about a quarter of a mile from a branch, which, after the heavy rains of the previous month, inundated the flat lands through which it ran, to a very great extent.

The atmosphere, after these rains, was humid and warm, and the materials for vegetable decomposition were abundant on the banks of said rivulet. So that in this instance we regarded it as of malarious origin, the more so that in previous years, intermittent and remittent fever abounded in the same locality. The adynamic or typhoid type of the disease we look upon as of analogous origin with typhoid (continued) fever, viz., an animal poison. And as to its contagiousness, we consider it contagious in the same sense, and to the same extent that typhoid fever is contagious.

There was, according to our observation, a remarkable exemption of the negro race from this disease. In 1852, the proportion was one black to eight white cases; in 1853, perhaps the ratio of blacks was a little greater. The same fact is recorded by Dr. Campbell; "It will be observed from our report," says Dr. C., "that the disease attacked only the white residents of the neighborhood, and although a number of negroes were subjected to exactly the same morbid influences as those whites, still not one of them, that we are aware of, was the subject of this form of dysentery." Dr. Brandon's experience on this point is thus recorded: "Dr. Campbell, in his article before referred to, remarks it as a singular fact, that negroes were not attacked by the disease, as it occurred to him. My observation was the same, at a distance of two hundred miles from where Dr. C's cases were located, and at a different season of the year. While the disease was prevailing, I heard of one case in the person of a negro child, in the neighborhood of my practice." It may not be out of place to state that negroes enjoy an immunity from typhoid fever also within the limits of our practice, but not to such a degree as in dysentery.

On the other hand, observers in other parts of the South have met with the disease (dysentery) chiefly among negroes. Such was the case with Dr. Wragg's epidemic already referred to. He says: "It had been confined principally to the negroes, but

not entirely, for several white persons had also suffered." Here are conflicting facts, for those who interest themselves in the morbid peculiarities of the different races. We have already withheld too long the main object of this paper, and we therefore enter upon the

TREATMENT OF THE STHENIC FORM. *Blood-Letting*.—From what has been advanced under the head of pathology on the inflammatory nature of this disease, it will be expected that blood-letting should occupy a prominent rank among remedial measures. We sincerely regret that this remedy was but little used in our practice, and the sole cause of its omission was an inadequate appreciation of the highly inflammatory character of the disease; and we would here frankly state a fact, deduced from our own experience, that the practitioner must have strong, and unequivocal views of the pathology of this disease to counter-act the influence exerted against blood-letting by its apparently prostrating tendency. It requires a firm and decided judgment to practice venesection, for a case that is being depleted already in the ratio of twenty to forty bloody evacuations a day; and yet most mortem revelations will demonstrate the absolute indispensableness of its use. Blood-letting then should be practiced at the very outset of sthenic dysentery, and if the case be not seen at this stage, it should not be neglected at any time thereafter that the general condition of the patient would seem to tolerate it; and if the symptoms do not moderate after the first venesection, it should be repeated in connection with other remedies hereinafter specified, again, and again until the disease is subdued.

Fears may be entertained that this treatment itself may be fatal to the patient; but we believe it to be far better to take such cases as those entirely out of nature's hands, and carry them to the very confines of eternity, if necessary, than to suffer the intestinal inflammation to continue in any degree. If prostration be produced by the treatment, we have stimulants and tonics to restore the sunken energies, which can be safely and profitably given after the subduction of the phlegmasia.

***Veratrum Viride*.**—As an adjuvant to venesection, *veratrum viride* may exercise an important influence, and this would be a

legitimate deduction from its effects in other inflammatory affections; we cannot recommend it, however, but from a limited experience.

Mrs. S. was seized, while riding in a carriage, with fever and dysentery. Saw her soon afterwards, and found her with high febrile excitement, (pulse 120) and all the symptoms of acute dysentery. Ordered four doses of hydr. submur, and Dov. powd., to be followed next morning by a dose of ol. rici.; other minor remedies were employed. Next morning her condition was no better. Prescribed 10 gtt. tr. ver. vir., with as many drops of tr. opii. every three hours until the pulse is reduced. About 12 o'clock at night was sent for in haste to see Mrs. S., whom I found quite prostrated from nausea and vomiting. After having taken the third dose, she commenced vomiting, which continued, intermittingly, for three or four hours, and the bowels had not acted during the same time. Her pulse was at 60, and the surface was cool—two quarter grain doses of sulph. morph., at intervals of half an hour, promptly arrested the vomiting, and ensured a good night's rest. Her pulse continued under the healthy standard for a few days, and the dysenteric inflammation was, as it were, jugulated. Convalescence was complete in a few days.

In such cases as the above, where there exists high febrile action, and no tendency to depression of the energies of the system, the veratrum cannot fail to exercise a beneficial effect.

Salines.—The first notice we have seen of the saline treatment of dysentery in modern times was published in the Charleston Medical Journal for 1849; in former times the neutral salts were recommended by Heberden, on account of "their power of controlling and quieting the irregular motions of the bowels, and their aptness to stay upon the stomach without being vomited up. At first I gave (says Dr. H.) only one drachm every six hours, which evidently soothed the pains very soon, and before it had any effect as a purge. In other cases, larger quantities were given, and with the double good effect both of affording present ease, and afterwards of entirely removing, by effectual evacuations, the cause of the disorder." (Commentaries, p. 124.)

A true and faithful medical historian may be profitably consulted at all times by the physician of the present day, even

though the lapse of centuries has intervened since the observations were recorded; and so we find the effects of the saline treatment of dysentery nearly a century ago almost identical with those of our own time.

We have used the neutral salts in the management of the sthenic form of this disease, since it became an epidemic in our section, and have had much reason to regard them with favor. Sulph. mag. and sulph. of soda were generally preferred, but in a few cases, the phos. soda and Seidlitz powder were used. Our method of giving them was as follows: Half an ounce of sulph. mag. or soda was given every three hours, until several free, copious and watery evacuations were obtained. These discharges being large and serous, devoid of blood and unattended by tenesmus or tormina, are readily distinguished from the small dysenteric actions, and afford more respite from suffering than can be secured by any other remedy. Opium was then given after each discharge, generally by the mouth, until the dysenteric actions returned, when it was suspended, and the salts given as before. This course was kept up, alternating the salts and opium, until the disease was subdued. Should it occur again in our practice, we should, in connection with the above plan, avail ourselves of the valuable aid which, in our opinion, may be derived from blood-letting. Of all the neutral salts, the sulph. soda seems to be the most efficient, and consequently we gave it the preference. Dr. Walker informs us that he has used the phosphate of soda with as good, if not better effects, than any of the others; but our experience on this point is different. We used the phos. soda, sulph. mag. and sulph. soda, successively in the same case, with the result that the sulph. soda alone answered our purpose. Yet, in young children, the phosphate ought to be preferred on account of the facility with which it may be given. It may be taken in gruel or chicken broth, without the child knowing that he is taking medicine.

We cannot too strongly insist on the advantages of this saline treatment over any other method that has come to our knowledge; it is the only one known to us, that will effectually, and with certainty, relieve the patient of the distressing pain and tenesmus. As sure as two to four half ounce doses are given, the bowels will act freely and without pain; and then the opium,

given with that freedom which ensures its effects on the system, will bring quiet, and calm, and rest, from the most distressing agony and pain. But the tenesmus and suffering will return in the course of eight to twelve hours ; combat it again with the saline, and give opium afterwards, as before, and continue this alternation until the disease is subdued.

Dr. Wragg, already alluded to, treated his epidemic with the super. tart. pot. and Dov. powd., with occasionally a mild cathartic ; and the practice was signally successful. He treated eighteen severe cases, with but one fatal case ; and this could not be fairly attributed to the failure of the remedies, but to the patient's own imprudence. His success is the more striking, because, under every other system of treatment, the mortality of the same epidemic was considerable. The proportions of the remedies varied from 5 to 10 grs. Dov. powd., and 15 to 30 grs. super. tart. pot., every three hours for 36 or 48 hours ; and when it was necessary to open the bowels, the powders were suspended, and castor oil given. Dr. Wragg thinks it acts on the secretions ; the discharge, under its use, soon lost their bloody mucus and lumpy character, and became, first serous, then bilious. It may have a chemical effect, also, observes Dr. W., not only on the matters already excreted from the blood, but on morbid matter in the blood, which has caused the disease.

The therapeutic value of the cream of tartar must depend on different principles from those that govern the agency of the sulphates of magnesia and soda ; the former acts not by purgation, but by its influence over the secretions—the latter generally relieve the complaint by the free serous evacuations produced. This, however, cannot be their sole mode of action ; for we have seen (what Heberden saw before us) small doses of salts afford more relief from suffering—have more actual control over the dysenteric actions—than large doses of opium, and that too without any purgative effect whatever. We have seen and heard many theories of the *methodus medendi* of salines in this disease ; but they are of little value in a practical sense. We conclude our notice of this class of medicinal agents by the remark, that wherever, to our knowledge, they have been tried, they have been attended with better success than any other plan of medication.

Mercurials.—We introduce this class of remedies for the sole purpose of pronouncing unqualified condemnation on them in the treatment of epidemic dysentery. Most, if not all, the practitioners in this locality have abandoned mercury, and taken up the saline treatment; and we have heard of no regrets for the change. Dr. Walker says: "My cases all died that took mercury, but not one that was exempt from it." So we will not detain the reader with any further consideration of this article.

Astringents, in the acute stage, we have found decidedly pernicious; they increase the tormina, and, in our opinion, are of minor importance in the management of this affection. The acet. plumbi produced tympanitis in one case, and was attended by no beneficial result in any shape whatever. When, however, the acute dysenteric symptoms give way, and there is yet frequent action from the bowels—perhaps six to twelve stools a day—astrinents will exert a good influence, and of these the tannate of quinine will fulfil the double indication of astringent and tonic. The following combinations will be found serviceable in this stage:

R. Quinæ Sulph.

Acid. Tannicum aa xlviij grs. M. F. pill. xxiv.

One three times a day.

R. Morph. Sulph. iij. grs.

Hyos. Extr. xxxvi. "

Acid. Tannicum xxiv. " M. F. pill. xii.

Dose—One after each stool.

Opium and brandy must be given freely in this stage—particularly the latter.

Enemata, especially if astringent, are of little value; indeed we consider them prejudicial in the acute stage, and if used at all, nothing but opium should be entertained. In most of our cases, there was such excessive irritability of the rectum, that nothing would be retained an instant; in *very few* instances, did we perceive any good result from injections.

Of blisters, we know but little, experimentally, in this disease; when used, no advantage seemed to accrue from them. Cupping, leeching and cataplasms to abdomen, are important adjuvants in the management of this affection.

The typhoid type of epidemic dysentery, will not admit of the

saline treatment; at least, in some cases where it was tried, it seemed to exert but little influence, and we are much at a loss to know what will have much influence in violent forms of this type. We cannot but think, however, that even in some cases of this form, when the skin is hot, pulse frequent, and thirst urgent, blood-letting would be beneficial at the very outset, and that local depletion with cups and leeches would be proper at a later period of the disease. In the majority of cases, however, our main reliance will rest on spts. turpentine, nit. arg., opium, brandy, and quinine. We have seen marked benefit from the simultaneous use of turpentine and nitrate of silver, ten to thirty drops of the former, and one-fourth of a grain to a grain of the latter, given alternately every two or three hours, and continued for twenty-four or forty-eight hours; after this, omit the remedies for a day or more, and resume them again as before, keeping up this course until the symptoms improve.

Blisters are more advantageous in this than in the sthenic type, and opiate and astringent enemata are better borne. Opiates and stimulants are indispensable in some of these cases, and they will be freely tolerated.

The tympanitis which is present in some of these cases, will tax the medical attendant's therapeutical resources to their utmost extent. Cloths wrung out of hot water and applied to the abdomen will relieve it quicker than anything else we have seen tried; an injection of a warm solution of assafœtida will sometimes answer a good purpose, and frequently every remedy will fail until a purgative action is obtained from the bowels. The spts. of turpentine and creosote will also have a tendency to improve this condition.

For the treatment of chronic dysentery, we will recommend only such remedies as we have derived marked advantage from. These are nit. argt. by the mouth and rectum; sulph. cupr. when the stomach will bear it; extr. nux vom. in combination with opium, and opiate injections. Many other valuable remedies are spoken of in the works on practice, which may have to be used if the above fail; but those we have specified have succeeded with us after the failure of many others. The chalk mixture in combination with opium is a good auxiliary to any of the above remedies.

We have now presented our experience in epidemic dysentery, and fear that our views may be considered too exclusive. Very many and able physicians have urged upon the profession modes of treatment totally different from ours, and totally differing one from the other.

This diversity arises, no doubt, from some essential modifications of different epidemics, requiring corresponding modifications of treatment. We cannot better conclude this paper than by inserting, in his own words, the following judicious observations of Sir James Macgrigor on this point :

"My opportunities of seeing this disease (dysentery) have been no common ones. Rarely, I believe, has it fallen to the lot of an individual to see so very many cases of one disease in such a diversity of climate and situation. In the 88th Regiment, during the course of upwards of ten years, I saw the same man the subject of this disease on the Continent of Europe, in America, in both extremes of Africa, and in India. Of late, it has afforded me not a little amusement to review my notes, as well as my journals of practice, in this disease, in all these quarters. * * * * * I became convinced, in Alexandria, that with change of climate and country, we had a different disease. This is one proof, how improper, and how unsafe, it is for the practitioner of one climate to sit down and describe the diseases of another. They, only, who have studied the same disease, in various opposite climates, can fully comprehend the extreme absurdity, as well as fallacy, of this." (Med. Sketches.)

ARTICLE XVIII.

An Obstinate Quartan cured with the Chloride of Sodium.

By JNO. STAINBACK WILSON, M. D., of Airmount, Ala.

Participating in the desire, now so prevalent in the profession, to obtain that great *desideratum*, a cheap and efficient substitute for the costly preparations of Cinchona, in the treatment of Intermittents, I have been induced to try common salt, in accordance with the recommendations of M. Piorry, Professor Dugas,* and others. And as the desire alluded to can be con-

* Vide Transactions Med. Soc. State of Georgia, 1852, p. 79.

summed only by experiments and reports, to which each should contribute a share, I hope that no apology is necessary for reporting even a single case, especially when its interest is somewhat enhanced by an obstinacy which defied the more ordinary and established remedies.

CASE. On the 24th March, I was requested to prescribe for G. W., a young man of sanguine temperament, and of sound constitution, naturally; but this had been impaired by frequent attacks of intermittent fever, which had produced, as usual, a pale cheek, and tumid spleen; these effects were accompanied by headache, mental and corporeal torpor, together with that indescribable sense of general indisposition characteristic of this abominable disease. And, as an evidence of the severity of the paroxysms, it may be added, that the last-mentioned symptoms were persistent, continuing, more or less, on his "well days." He stated that several physicians had prescribed for him—that they had given him opium, and (perhaps) quinine, &c., &c., without "breaking them;" and I had, myself, several weeks previously, put him on Fowler's solution, with the same unsuccessful result.

Prescription: Blue mass, 10 grs., to be followed by castor oil, if necessary. Then, on chill-day, (26th,) begin ten hours before the time of the paroxysm, and take one of the following powders every two hours, with camphor mixture and laudanum, in willow-bark tea: \mathcal{R} . Chloride Sodium, 360 grs. Make six powders.

27th. Says that he had his paroxysm at the usual time, and that it "shook him worse than usual;" pain in side (spleen) less, while fever was on: this was shorter, also. These symptoms considered favorable. *Prescription:* Omit all other remedies, and take 60 grs. chloride sodium, three times a day, on well days. Then begin nine hours before chill time, (29th,) and take 40 grs. of the same every hour, in warm gruel.

31st. Has had no paroxysm. Take Fowler's solution, 5 gtt. *ter in die*, as a prophylactic.

REMARK.—The cure in this case must be attributed to the salt, as he took nothing else on 29th; for it can hardly be supposed that the gruel had any agency in it.

ARTICLE XIX.

A Case of Twins of different color. Reported by A. F. ATTAWAY, M. D., of Madison county, Ga.

Mrs. C——, a white woman, the mother of three children, gave birth to twins on the 16th of January, an interval of an hour intervening between the births.

The first born was very dark, and had every appearance of being of African paternity. Not being willing to suggest such a thing, I tried to explain the matter, by attributing the color to cyanosis. At the expiration of one hour, the second child was born, and had very light colored hair, fair skin, and blue eyes, which made the contrast very striking.

The condition of the mother and children was such, that they required medical treatment for several weeks, during which time I marked the great difference between the children with peculiar interest.

After the recovery of the woman and her children, seeing the African characteristics more and more developed, I asked the mother to give me a correct relation of the circumstances connected with her conception, &c.

After some hesitation, she gave me the following history of her case:—She said that five days after the cessation of her last menstruation, she had sexual intercourse with the white man, whom she considered the father of the white child. Three days thereafter, making eight days after menstruation, she cohabited with a negro man, who she said was the father of her other child. She assured me that this was the only coitus she had with the negro man for more than one month after she menstruated. If this be true, she conceived at that time.

The precise period of her other conception is less definite, in consequence of the fact that she had connection with the father of her white child, at different times, during the month following her last menstruation.

On the Pathology and Treatment of Uterine Catarrh and Internal Metritis. By E. J. TILT, M. D., Senior Physician to the Farringdon General Dispensary and Lying-In Charity, and to the Paddington Free Dispensary for Women and Children. (Continued from May No. of this Journal.)

In the preceding case was exemplified that form of metritis in which the internal surface of the womb remains free from all organic growth, but in other cases symptoms similar to those described seem to depend on the presence of various organic productions on the surface of the mucous membrane of the body of the womb, as in the following case:—

Mrs. L——, an American lady, placed herself under my care in 1850. She was thirty years of age, anæmic, and much debilitated. The menstrual flow first came at fifteen years of age, and she was regular until pregnant. She married at twenty-five, had a child at twenty-seven, and soon recovered her strength. At twenty-eight she again conceived, and during the whole of that pregnancy suffered much from abdominal pain. The placenta was adherent, and removed with difficulty. It was long before she recovered her health, but it remained tolerable for a few months, when she was obliged to wean the child for want of milk. Menstruation then returned, and was unusually painful and abundant. When the flow ceased, the abdominal pains remained, and hysterical symptoms supervened; the menstrual flow returned several times at the regular epoch, but always more or less as a flooding, and the abdominal pains increased. The flooding next came on during the intermenstrual periods, and when that ceased there was a discharge like water, which sometimes had an offensive smell. Alum injections had been tried, steel and tonics given; but the patient's health completely failed, and a sea-voyage was recommended. During the sea-sickness the uterine discharge had almost ceased, and the patient rallied; but a few weeks after her arrival in England the old symptoms returned, and the patient, when I saw her, had been for some time confined to her bed or the sofa.

On examination, the neck of the womb was found larger than usual, but pressure gave no pain; the os uteri was patulous, but the mucous membrane lining the neck was pale, and the os uteri without any lesions. The body of the womb was double its usual size, and very painful on pressure. On introducing the curette, the os internum was found dilated, and the end of the curette, evidently moved in an enlarged womb; its internal surface felt rough. I gently moved the instrument backwards and forwards, and brought away about half a teaspoonful of what I could only compare to proud flesh, broken

off from the surface of a wound. This was followed by considerable pain and flow of blood, but both abated during the next day, and there was evident improvement during the week. Ten days after, the operation was repeated, and I removed about a teaspoonful of similar products. This operation was also followed by great pain and loss of blood, but both symptoms soon abated, and the patient had no more sanguineous or serous discharges. The abdominal pains and tendency to hysteria lasted for a long time, but steel and tonics removed them at last. About three months after the last operation, menstruation returned, and on making an examination some time afterwards, I found that the os internum admitted the curette with difficulty, and the body of the womb had contracted to little more than its habitual size. In this case the adherence of the placenta seems to have originated the disease, and the menstrual nîsus gave it a first impulse. The flooding and the serous discharges were evidently caused by the morbid products on the internal surface of the womb; after their removal the patient rapidly recovered. This sudden improvement has been noticed in some of the cases published by Recamier in the *Union Médicale*, 1850. Recamier first drew attention to this form of disease; cases have been recorded by many French practitioners of note, and Professor Nelaton has met with these uterine vegetations in some women who died of cholera at the Hospitals of St. Antoine and St. Louis, of Paris. I have seen cases of this description in Recamier's practice, and three in my own during the last three years. Still, this form of disease has not been noticed in the most recent works on uterine pathology, either as a form of internal metritis or a cause of menorrhagia, most likely because it has been confounded with other lesions under the name of menorrhagia. It deserves, however, to be taken into consideration on account of its being the cause of sero-sanguinolent discharges lasting for years, notwithstanding all treatment, and reducing the patient's strength to the lowest ebb, even if the result be not fatal. In the last case the symptoms were caused by the production of flesh-like excrescences on the internal surface of the womb. They are fragile, and can easily be detached with the finger nail. Recamier has termed them *uterine vegetations*. Robin, of Paris, a well-known microscopist, has examined them microscopically, and says, "they are formed of a small amount of cellular tissue, while the proportion of fibro-plastic tissue is even more abundant than it is in the uterine mucous membrane itself."

In other cases the uterine curette has removed from the womb round bodies varying from the size of a hemp seed to

that of a pea, which Robert (*Des Affections du Col de l'Uterus*—Paris, 1848) supposes to be the hypertrophied glands of the uterine mucous membrane. The products removed from some patients by Recamier had the appearance of bunches of small currants, leading to the inference that they were hydatid formations in the earliest stage of their development, and it is open to discussion whether such products can in any way be said to depend upon inflammation.

With respect to the symptoms by which these various abnormal productions may be recognised: they are likely to be met with in women who, having borne children, continue to suffer from uterine symptoms, notwithstanding prolonged judicious treatment, although nothing amiss can be found in the neck and orifice of the womb, while its body is larger than usual, and painful on pressure, the more so if there have been frequent miscarriages not to be explained by the patient's antecedents. Internal metritis is also to be suspected in patients who have for years been subject to abundant sanguineous discharges, or of red coloured serum, a species of discharge which the French call "*eaux rousses*."

With regard to the sanguineous discharges as a symptom of internal metritis, there is a concordance of testimony; some authors even regard it almost as characteristic of internal metritis, as rust-coloured expectoration is of pneumonia. Here I must observe that this abundant sero-sanguinolent discharge cannot be confounded with the scanty, thick, brown discharge of the sub-acute inflammation of the mucous membrane of the neck of the womb. As for the menstrual flow, it is sometimes very abundant; but it is often absent, or at least is not to be distinguished from the habitual sero-sanguinolent discharges. The diagnosis is confirmed by the freedom with which the uterine sound enters the body of the womb; and if the uterine curette is made use of, it will sometimes detect roughness on the internal surface of the womb, or at all events will bring away some of the morbid products I have described.

When the foregoing facts were lately brought forward at the Medical Society of London, Dr. Bennett implied that the uterine curette had only removed the products from the neck of the womb; but it seems to me that when the uterine sound or the uterine curette are used by intelligent practitioners, the diagnosis must acquire in their hand the greatest precision. If an instrument be passed to the depth of from two to three inches into the neck of the womb, where can it go except into the body of the womb, unless it makes a false passage? Recamier used to say that in the space of fifty years he had seen and operated on about 100 of these cases, and that three ter-

minated fatally. A post-mortem examination showed that the instrument had penetrated into the womb, the fundus of which in two instances offered evidence of its having been softened before the operation in which it had been transfixed by the curette—a warning to use the instrument only when absolutely required, and then to use it with the greatest caution.

Having sketched the pathology of internal metritis, as far as it is now possible to deduce it from the recorded experience of others and myself, I shall now discuss the treatment of the disease, which is beset with difficulties, and often unavoidably protracted to a great length of time.

There are certain general indications of treatment available in all cases, whether the uterine mucous membrane does or does not present organic products on its surface. Thus it is necessary to ascertain by a careful examination, whether the hæmorrhage does not depend upon some erectile development at the orifice of the neck of the womb, as in cases alluded to in the previous papers. The menorrhagia must be restrained by the means usually recommended, among which we may mention the horizontal position in a cool temperature; the application of cloths steeped in cold vinegar and water to the pubis and the inner part of the thighs; the injections of cold water, or cold aluminated water, to the vagina and rectum, two or three times in the course of the day. Such measures, however, will seldom succeed unless they be associated with the internal exhibition of ergot of rye in doses of from five to ten grains three or four times a day, from which we think the most benefit is to be derived, though in some cases the practitioner will be obliged to ring the changes on mineral acids, acetate of lead, tannin, gallic acid, &c., according to the rules laid down in works on therapeutics, to which I refer the reader.

The patient's strength must be kept up by such an amount of food as can be digested; but it should be taken cold. Wine and stimulants should be avoided, and all drinks should be as cold as possible. Water, or cream ices, flavoured according to the patient's taste, may be advantageously given between meals. Should the complaint determine continued insomnia and hysterical symptoms, acetate of morphine must be given, and the doses progressively increased until such symptoms abate. In the interesting case I related in a previous paper, the patient for many days took from two to three grains of acetate of morphine, and I believe that it not only brought on sleep and diminished hysterical phenomena, but was also instrumental in curing the uterine disease, for the manifest improvement only set in when the patient was brought under the influence of opium.

When the violence of the disease has abated, and instead of flooding, there remains, amongst other symptoms, a moderate discharge of serum, sanguineous or not, then benefit will be derived from the application of a seton or issue above the pubis, either of which should of course be kept open for several months. This is a disagreeable remedy, and therefore seldom proposed, but it will be found beneficial not only in cases of internal metritis, but also when dysmenorrhœa is attended by uterine exfoliation; indeed we have found nothing so useful in this obstinate complaint.

If it has been ascertained by means of the uterine curette that the internal surface of the womb is free from all morbid products, all further instrumental interference would be objectionable, inasmuch as it could do no good, and must do harm. Should the curette, on the contrary, detect roughness, and bring away some of the morbid growths previously described, their removal from the womb is an indication of first-rate importance, since a rapid cure has sometimes followed the operation, and no improvement can take place so long as they remain.

As this method of treatment is almost unknown amongst us, and as it is also applicable to the cure of menorrhagia when caused by retained portions of placenta, or by hydatid growths in the early stage of their formation, I shall enter into some details. Recamier, in one case, finding the neck of the womb much dilated, introduced his finger into the cavity of the womb, and scraped off the vegetations with his nail. This suggested to him, some forty years ago, the idea of doing the same with an uterine sound made of pewter or steel, and he called it a *curette*, because it was destined to remove morbid growths from the cavity of the womb. The curette is an uterine sound, blunt, somewhat curved at its extremity, and hollowed out on its curved side. It should be introduced into the cavity of the womb like Dr. Simpson's uterine sound, and then gently pressed on the internal surface of the womb so as to detach any soft bodies that may be there. In some rare cases in which the internal orifice of the womb was widely dilated, Recamier used a larger instrument. Whatever instrument was used, the speculum would only render the operation more difficult. Recamier generally followed up this treatment by cauterizing the internal cavity of the neck of the womb with the solid nitrate of silver, by means of an instrument resembling Lallemand's *porte-caustique*. Two cauterizations were in general sufficient, and in some of the cases published by Recamier, this treatment had for effect not only to stop the menorrhagia, but also to cause the womb to contract, and

thereby to return to a right position from retroflexed, that it had been for years. These operations have been performed in the presence of Paul Dubois, Blandin, Guerin, and many others; and repeated by Maisonneuve, Robert, Gosselin, and myself. In the course of last year, Nelaton and Nonat have published several cases of it in the *Gazette des Hôpitaux*. The first effects of the operation are to increase considerably the habitual hypogastric pain, but this does not last long, and when it disappears, the habitual pains likewise disappear, as well as the fætidity of the discharge, and those sero-sanguinolent discharges which have lasted for years sometimes completely cease in a few days.

Many will doubtless be afraid of this operation, but is nothing to be risked when menorrhagia is interminate, and when the patient's health is sinking from the effects of abundant sero-purulent discharge, for which the neck of the womb gives no explanation? In such cases, fortunately rare, is it not rational to enter the cavity of the womb with a blunt instrument, in order to interrogate its surface, and to remove those superficial abnormal productions which have been known to produce the symptoms I have detailed? The risk is not so great as might be supposed, for Recamier performed the operation on 100 patients, and only lost three by peritonitis. In two cases, peritonitis was caused by the passage of the curette through a previously softened portion of the womb, which was thus transfixed by the instrument. In the third case, Professor Nelaton, who made the post-mortem examination, was not convinced that death was caused by the operation; no trace of metritis was found, neither had the curette made a false passage. Pus was found in both the Fallopian tubes, but as the patient was opened twenty-four hours after the operation, it is difficult to suppose that it was produced by the operation. I have not heard of any other fatal termination to the numerous similar operations performed by other surgeons. A very large volume could be filled with the fatal effects of false passages made in attempting to sound the bladder, and still surgeons continue to perform this operation. We have heard of several fatal results of false passages made with the uterine sound, and still most practitioners feel justified in using an instrument of which Dr. Simpson has well indicated the utility. For the same reason I feel justified in advocating the use of the uterine curette, notwithstanding accidents, which will impress upon you the necessity of using it with intelligent gentleness. You will, moreover, doubtless observe that the plan of treatment I have shown to be useful in some rare instances is not more dangerous than that proposed by others for similar cases. Velpeau advocates

injections and cauterization of the internal cavity of the womb; and Dr. Bennet, in his notice of internal metritis, says "that he has carried the solid nitrate of silver into the cavity of the womb in internal metritis, or else the acid nitrate of mercury as a last resort, and sometimes without success."

I must not omit mentioning that you will find the curette, very useful to remove portions of retained placenta from the womb, when its size and sensibility, as well as continued flooding subsequent to confinement, lead to such a diagnosis. Recamier first used it for this purpose, I and others have imitated his example. Vidal de Cassis, Hourmann, and other French practitioners, have tried injections of a solution of nitrate of silver in what they call uterine catarrh. Acute peritonitis occurred in some of their cases, several of which ended fatally; but I have already shown that French pathologists have confounded some half-dozen different diseases under the name of uterine catarrh.

To give an idea of the kind of cases in which the French have tried uterine injections, I shall relate what Becquerel did at La Pitié in 1850. He chose seven women, in all of whom the neck of the womb was more or less acutely inflamed; the orifice of the womb was larger than it ought to have been, and surrounded by erosions; the discharge was muco-purulent. An india-rubber sound was introduced into the womb to the depth of an inch and a half, and by means of a syringe, a solution of nitrate of silver of two grains to the ounce of water was injected. Three out of the seven patients were suddenly seized with symptoms of severe metro-peritonitis, from which it is true they recovered, but without even being cured of the original uterine disease, of which only one out of the seven was cured. These cases could not have been worse chosen, for while the neck of the womb was acutely inflamed, the body of the womb was most likely in a healthy state; and although the india-rubber sound did not penetrate into the cavity of the womb, the solution of nitrate of silver did, and coming in contact with a surface, the sensitiveness of which had not been blunted by long-continued morbid action, metro-peritonitis ensued.

The fatal results of uterine injections in such cases does not imply that they would not be useful in well-selected cases. Although such is my opinion, I have never employed injections into the womb, for I have been deterred from their employment by the knowledge of the uncertainty of their action. Sometimes a strong solution of nitrate of silver can be injected into the womb without much reaction; at others, a decoction of nut-leaves brings on acute peritonitis. This uncertainty of

action is met with even in the same patients; thus, in one of Recamier's cases, the vegetations had been removed from the womb, its cavity had been twice cauterized without determining any reaction, when it was thought advisable to inject a little tepid water into the womb, but this was very soon followed by violent symptoms of peritonitis. In three of Becquerel's cases peritonitis ensued after a second, a third, and a fourth injection, the previous injections having produced no ill effects.

In case uterine injections should be deemed useful, a weak solution of tincture of iodine would be the best fluid to be used, and the best instrument, that which was suggested to Dr. Mackenzie by the sight of Mr. Coxeter's ingenious instrument for laryngeal injections. I should, however, caution those who might use it to press lightly on the fundus of the india rubber receptacle, otherwise the fluid would be projected with too great force.* In two instances I have removed the vegetations from the internal cavity by means of the curette, and Nature did the rest.

In another case, after applying the speculum, and removing as much as possible of uterine mucus, I covered the extremity of the uterine sound with cotton wool, which, when saturated with tincture of iodine, I introduced into the cavity of the womb. The neck of the womb took up part of the tincture; so, removing the sound, I again saturated it, and re-introduced and pressed it about in various directions. This was not followed by much pain. Three days afterwards some of the vegetations came away, with a sero-purulent discharge. Ten days after, I repeated the operation with similar results, and then the case did well.

In the wards of Baudeloque, at the Hôpital des Enfants at Paris, I had been often struck by the good effects which followed the application of caustic iodine to the ulcerated surfaces of scrofulous patients, and I was led to try the same application, according to the strength indicated by the *Pharmacopœia*, or diluted with water, to various morbid lesions of the mucous membrane of the womb.

The benefits to be derived from the topical applications of iodine to the womb are little known to the profession, and are well deserving of more extensive trial than has hitherto been given to them, not only on account of the favourable results of their application in the cases under consideration, but also from the well-known fact of the innocuity of the introduction of iodine into our tissues. Within the last few years, in France,

* For further details relative to the dangers of uterine injections, I may refer the reader to p. 156 of my work on *Diseases of Women and Ovarian Inflammation*, 2nd edition.

tincture of iodine has not only been injected into the tunica vaginalis, to cure hydrocele, but also in fistulous passages of acutely inflamed extensive mammary abscesses, into large ovarian and other cysts, and even into the peritonæal cavity to cure ascites, and without determining those symptoms of violent inflammation that might have been expected.

Having thus briefly sketched what is known relative to uterine catarrh and internal metritis, it may be well to state some of the points in which they differ, as the last complaint has but little occupied the profession of this country.

Uterine catarrh is very frequent; internal metritis very rare. Uterine catarrh almost exclusively affects the neck of the womb; internal metritis, its body. Uterine catarrh is as frequently observed in the single as in the married; internal metritis seems to affect almost exclusively those who have borne children. In uterine catarrh the discharge is viscous; in internal metritis, serous or sanguineous, and very abundant. Uterine catarrh gives rise to no abnormal growths; internal metritis frequently does. In uterine catarrh life is never compromised; it is not unfrequently so in internal metritis. Injections have been found useless and often dangerous in uterine catarrh, but are sometimes serviceable in internal metritis.—[*London Lancet*.

MEDICAL SOCIETY OF LONDON.

Dr. Fuller read a paper—*On the Excretions as guides to the Administration of Remedies in Rheumatism and Rheumatic Gout*.

The author began by stating that no great advance can take place in our knowledge of disease, nor any material improvement in its treatment, unless we endeavour to discover the primary cause of each morbid action, and trace its influence in modifying and deranging the various functions of life. After briefly illustrating this important truth, he proceeded to point out how close a relationship the amount and character of the various excretions must necessarily bear to the condition of the general system, and how certain an index they afford to the energy of those processes by which the effete materials of the body are got rid of. Hence he deduced the inference, that no plan of treatment can be proposed, with a well-founded rational prospect of success, which is not based on a due regard to the different excretions, and varied with their varying condition.

He then proceeded to apply this general law to the elucidation of the treatment of rheumatism and rheumatic gout, and showed that, inasmuch as these disorders depend on the presence of a morbid matter, the product of imperfect or faulty

assimilation, a proper action of the excretory organs is more than usually necessary. The alterations usually produced on the character of the excretions by the existence of rheumatism and rheumatic gout, were next alluded to, and some remarkable exceptions pointed out; and the author stated his opinion that the chief aim of treatment should be, by producing, as far as possible, an increase of those excretions which are scanty or deficient, to make each and all of the excretory organs assist in eliminating the *materies morbi*, and to endeavour, by close attention to the character of the excretions, to correct their morbid condition. He then referred to the good effects resulting from treatment regulated according to these views, and mentioned many facts to prove and illustrate the ill success which attends every mode of treatment in which the condition of the excretory organs is not attended to. Having fully established these general principles, his next endeavor was to point out the means by which they can best be carried out. He first premised that if all the excretions are scanty or suppressed, and if at the same time the pulse be full and bounding, venesection will not only relieve the general tension of the system, and alleviate the pain and general distress, but will be followed by action of the excretory organs. He then proceeded to discuss each of the excretions separately, and in regard to the perspiration, stated his conviction that much mischief is often done by interfering with Nature's mode of operation. No bath should be administered as long as perspiration takes place naturally, but if the skin is dry or acting sluggishly, a bath is essential to stimulate its action. He strongly recommended a water bath of 100° Fahr., rendered alkaline by potash or soda, but in the event of its being impracticable to make use of a water bath, the vapour or hot-air bath may be substituted. In either case the effects of the bath should be sustained by guaiacum and Dover's powder, or tartarized antimony and saline diaphoretic medicines. The only exceptions to this general rule are met with in persons of a weakly constitution, or towards the close of lingering cases. In such instances the perspiration is sometimes very profuse, but loses its distinctive empyrheumatic odour, and much of its peculiar acid character, and is accompanied by a soddened state of skin, a quick, feeble, irritable pulse, and not unfrequently by an eruption of sudamina. Tonics, such as quina and sulphuric acid, are then requisite, instead of diaphoretics and salines, and as soon as all feverishness has subsided, the cautious administration of iron is almost always beneficial. The urine was next appealed to, and made to furnish its quota of evidence. Dr. Fuller insisted strongly on the fact that the mere appearance of the urine, its colour, clearness, or torpidity,

affords no clue to its real condition—to the amount and character of its solid ingredients, which can only be ascertained by careful examination. This he proved by reference to facts, and then went on to show that the amount of solid matter excreted by the kidneys is usually much diminished, and that diuretics are necessary to increase their action. A most important question is, as to what diuretics should be employed. A state of congestion and irritation exists consequent on the abnormal condition of the blood, and the exhibition of ordinary diuretic medicines, which operate merely as renal stimulants, is more likely to increase that congestion, than to cause an abundant flow of urine. Hence cantharides, squills, nitric ether, scoparium, and other similar remedies are of little or no service, whilst alkalies and the neutral salts, such as the acetate of potash and the potassio-tartrate of soda, which correct the condition of the blood, are most active in promoting diuresis. So also are the preparations of colchicum. Water, too, proves of service by promoting the absorption of the salts, and assisting not only in the excretion of the solid matters, but in their subsequent solution. The condition of the urine, as to specific gravity, turbidity, and activity, was shown to be the best practical test as to the dose in which alkalies should be administered, the frequency of their repetition, and the propriety of persevering in their use. The alvine evacuations were next referred to, the necessity for strict attention to their character was pointed out, and the peculiar conditions which call for the administration of different remedies were clearly indicated. Dr. Fuller insisted upon the powerful cholagogue influence of aloes and the acetous extract of colchicum in these cases, and urged the administration of these remedies, in conjunction with blue pill or calomel, whenever it appears desirable to excite an increased flow of bile. The principles of treatment already laid down were next applied to chronic rheumatism, and subsequently to rheumatic gout, and it was shown that in the latter form of disease the treatment requisite to produce the desired effects need considerable modification according to the stage of the disorder, and the constitution of the patient. A disregard of this fact, together with the practice, too prevalent in the present day, of prescribing each medicine separately, constitute, in Dr. Fuller's opinion, the chief cause of the frequent failure of the treatment ordinarily employed in rheumatism and rheumatic gout, and form additional grounds for a close examination of the excreta, inasmuch as such an examination proves that no two cases are alike, but necessarily require remedies differing widely in their character, no less than in the dose in which, and the period of the attack at which they should be administered.

Dr. Semple, after speaking of the unsatisfactory results of the treatment of rheumatism which he had formerly pursued, by bleeding, &c., observed, that for some time past he had treated all cases of acute rheumatism with lemon-juice, and the result had been invariably satisfactory. For the first few days of treatment he placed the patient on strictly low diet, and administered the juice of six lemons daily; this, with opium, given in the form of the soap-pill, formed his entire treatment. The opium was given in doses sufficient to relieve the pain, and might consist of one, two, or even three grains. Under this plan the pain gradually became less, the fever subsided, and the disease abated. The return to health was more rapid than when exhausting treatment had been resorted to. Care was requisite, after convalescence, that the diet was not too stimulating. This treatment had the advantage of allowing us to use more energetic measures when any local complication, as heart disease, took place, as the system had not been previously exhausted by treatment. The plan had also the advantage of simplicity, and surely that was a very great one. He did not profess to determine the *modus operandi* of the lemon-juice, but its beneficial results were unmistakable.

Dr. Theophilus Thompson thought that in Dr. Fuller's paper the importance of the state of the excretions as an indication of the mode of treatment to be employed, had been overrated. The author had accidentally touched upon a more important point—viz., the state of the blood in rheumatism. In this disease we must have a careful regard to the general condition of the patient, as well as paying a strict attention to the state of the secretions, for a similar state of the excretions might exist under very different conditions of the system, and different modes of treatment be therefore indicated. The excretions, too, instead of being guides to treatment, might only show that the disease was passing off. Respecting lemon-juice in rheumatism, he had found it of more service in inflammatory cases of the disease, in which the patient was not robust, and depletion could not be resorted to.—[*Ibid.*]

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Of Certain Pathological states of the Blood, and of their Treatment. By JAMES COPLAND, M.D., F.R.S., President.

The author, after describing various symptoms and signs of irritation of the blood, and noting more particularly the changes observed in the excretions, &c., deduced a series of inferences as the bases upon which he founded his practice and treatment. He arranged the vitiations of the blood under certain heads or

categories, according to the causes, extrinsic or pathological, producing them, with reference to the indications of treatment, and these comprehended the following seven orders:—

1. Vitiations produced by imperfect assimilation or development of the blood-globules.

2. Vitiations occasioned by the increased action of the organs, which waste or decompose the hæmato-globulin—which increase the fibrine and augment the urea.

3. Contaminations arising from the absorption of purulent, sanious, or other morbid matters, into the circulation, or from the imbibition of any of these by the veins or cellular tissue.

4. Alterations sometimes supervening on the foregoing, or complicating the latter, such as fibrinous coagula or concretions, or inflammation of arteries, veins, or lymphatics, puriform infiltrations, or fomentations.

5. Vitiations occasioned by the imperfect performance, or by the interruption or suppression of a depurating function.

6. Contamination produced by morbid miasms, or by specific seminia, as in malignant, pestilential, and septic maladies.

7. The inoculation of poisonous secretions or fluids, as the fluids from erysipelatous inflammation, from asthenic or diffusive inflammation, from bodies recently dead from malignant diseases, or from putrid animal matters.

The treatment appropriate to each of these orders or categories of blood vitiation might be differently estimated by different observers; the author professing, however, to give only the results of his own observation and experience. His practice had been based upon a close observation, and upon rational inferences from such observation. The treatment adopted by the author in these various conditions was then detailed, illustrated here and there by some very instructive cases. The author dwelt at some length on the treatment of that morbid state of the blood which occurred in acute rheumatism, and which is characterized by the redundancy of the fibrinous and ureal constituents of the blood. What medicines would counteract the disposition to fibrinous attraction in the blood, or such as might exist? Calomel, and calomel and opium, diaphoretics, emetics, purgatives, were doubtless excellent initiatory means to diminish excrementitious plethora; but to promote the depuratory functions he had found the greatest advantage from magnesia and its citrate, the carbonates and citrates of the fixed alkalies, the biborates of soda and potass, the nitrate and chlorate of potass, sublimed and precipitated sulphur, &c., &c., as well as the various preparations of cinchona and turpentine. For the treatment of the sixth category, the advantages derived from large doses of turpentine were detailed; and the

author concluded by expressing his hopes that he should be excused for having made so frequent reference to his own writings, where many of the matters comprised in this extensive subject were more fully discussed; but he had his own originality in some topics to vindicate, as several authors who had recently written, had considered that opinions and ideas were fair objects of plunder, if they could be conveyed away without reference to their originators, and in a different array of words.—[*Ibid.*

Prognosis and Treatment of Epilepsy.

The *Union Médicale* for May 17th and 19th, contains an article by Dr. Herpin, of Geneva, on the above subject, of which we now give an abstract.

In the *Union Médicale* for December 1, 2, and 7, 1852, M. Moreau, of Tours, relates nine cases of epilepsy, in which oxide of zinc had failed to arrest the disease, a remedy stated by Dr. Herpin to be of considerable efficacy. Seven of the cases were of the class stated by Dr. Herpin to be most amenable to treatment, and the medicine was administered according to the rules laid down by him in his essay, *Du Prognostic et du Traitement curatif de l'Epilepsie*, published last year at Paris. Dr. Herpin points out the causes of M. Moreau's want of success, in the following manner:—

1. The first remarkable point which may account in a great measure for the different results obtained by M. Moreau and Dr. Herpin was, that eight of M. Moreau's cases were hospital patients, while Dr. Herpin's were private patients. Dr. Herpin observes, that physicians who have the charge of epileptic wards in hospitals regard the disease as almost always incurable; while those who see the patients at home, as far as can be judged from their writings, form a very different prognosis. Tissot, Odier, De la Rive, and C. Vieusseux, all believe in the curability of a fair proportion of epileptic cases. A principal cause of the difference between the opinions of the two classes of practitioners is, that those in private practice generally see the disease from its commencement, while hospital physicians almost always have to treat severe or obstinate cases.

2. M. Moreau had only male patients; Dr. Herpin had more females than males. From an analysis of his cases, Dr. Herpin arrives at the following results:—

Of twenty-six female epileptic patients, sixteen were cured, six were improved, and four were incurable.

Of twenty-four male epileptic patients, twelve were cured, four were improved, and eight were incurable.

There were thus twice as many incurable cases among males as among females.

3. With regard to age, Dr. Herpin has obtained the following results:—

Of thirty-five patients under 20 years, eighteen were cured, nine improved, and eight were incurable.

Of nine patients aged from 20 to 50, five were cured, one was improved, and three were incurable.

Of six patients aged from 50 to 80, five were cured, and one was incurable.

The period of life from 30 to 50 furnishes a third of incurable cases; while the other two do not together supply a fourth. All M. Moreau's cases were from 19 to 50 years of age, the most unfavourable period.

4. With regard to the previous duration of the disease, Dr. Herpin finds that—

Of twenty-three cases, which had existed less than a year, fifteen were cured, five were improved, and three were incurable.

Of twenty-seven cases of from one to twenty years' duration, thirteen were cured, five were improved, and nine were incurable.

While nearly one-half of Dr. Herpin's cases were of less than a year's duration, three of M. Moreau's patients had been ill from fourteen to twenty months, one for two years at least, three for six years, and one for about twenty years; the ninth had recent attacks of vertigo, but had probably had an epileptic attack six months before.

5. With regard to the number of attacks previous to treatment:—

Thirty epileptic patients, who had had less than twelve attacks, furnished only three incurable cases.

Twenty-two patients who had had at least from thirty to a hundred attacks, furnished twelve completely obstinate cases, being at least five times as many as in the preceding category.

Of M. Moreau's nine cases, one, who was seized with vertigo, had perhaps had a fit; one patient had had only four attacks; one had had about fifty; four from seventy to eighty; one more than a hundred; and one more than five hundred. Besides this, one of the patients had, before the commencement of treatment, paralysis, denoting organic lesion of the brain, which was proved by the autopsy; and another had been twice insane. This latter circumstance was met with in one of Dr. Herpin's cases, in whom, though the conditions for treatment were otherwise favourable, the disease remained incurable.

Besides these causes of failure in M. Moreau's cases, Dr.

Herpin points out that the want of sufficient judgment in the choice of treatment is perhaps a more powerful obstacle. He observes that as long as we are unacquainted with the indications of each remedy for epilepsy, we must begin by giving that which experience has shown to have succeeded in the greatest number of cases; then, in case of failure, we must have recourse in succession to other remedies of efficacy. By employing only one, especially in a number of patients placed in the same conditions as to age, sex, etc., we render ourselves liable to fall on the medicine which is not indicated. This is precisely what, it seems, has accidentally happened to M. Moreau.

Oxide of zinc is believed by Dr. Herpin to fail generally in epileptic patients in the vigour of their age, especially in men. Taking the whole of the cases placed in favourable conditions as regarded the number of previous attacks, and which were treated by oxide of zinc, he finds that there were twenty-six cures and five failures—all the latter being in patients between the ages of seventeen and fifty-nine years. On examining into the results of the treatment by oxide of zinc in men of between 20 and 50 years, in order that the conditions of sex and age might be the same as in M. Moreau's patients, Dr. Herpin finds six patients who were almost all in the most favourable conditions for treatment. In one, venesection appeared to have more influence than the zinc in producing improvement. Of the remaining five cases, there were—one cure without relapse, in a patient who had had only three attacks; two cures followed by relapse—in one of these the oxide of zinc failed on the subsequent trial; one in whom improvement was produced at the age of 15, but in whom the same remedy failed ten years later; and lastly, one in whom the disease altogether resisted treatment, although it had been commenced five days after the first attack. Thus, while the total number of favourable cases treated by zinc are in the proportion of five to six, adults furnish only three cases out of five, and in only one of these was the cure permanent.

In adult age, it is necessary to give zinc in large doses and for a considerable time; in childhood and old age, the same result is obtained from smaller doses, and, in some cases, from almost insignificant quantities.

The preceding observations appear to Dr. Herpin to afford sufficient reason for arriving at the following conclusions:—

1. Oxide of zinc seems to be indicated as an anti-epileptic in children and old persons.
2. It often fails in persons of middle age, especially in men.
3. If it be employed in females, it must be given in large doses and for a long time.

Whatever, Dr. Herpin observes, may be the remedies employed, it is of the highest importance that the disease be treated at as early a period as possible. He is convinced that, by perseveringly treating epilepsy from its earliest manifestation, there is a certainty of cure in a large majority of cases. At present, some mistake the first symptoms of the disease; others treat it for a time by means almost always inefficacious, such as bleeding, anthelmintics, etc.; others again try useful remedies, but timidly, and without effect. A small number, chiefly hospital physicians, form a tolerably accurate notion of the choice of medicine and of the results obtained; but they are placed in the worst conditions for acting at the most favourable moment.

Dr. Herpin promises, at a future period, to publish in the *Union Médicale* the details of some cases in the private practice of himself and others, giving both the successful and the unsuccessful cases in the proportions in which they have been met with.—[*Association Medical Journal. American Journal of Medical Sciences.*

On the Cause of Permanent Flexion of the Knee Joint, after Amputation of the Leg. By J. M. CARNOCHAN, M. D., Chief Surgeon to the State Emigrants' Hospital, &c.

The improvements of late made in mechanical inventions to supply the defect resulting from amputation of the lower extremity, have been practically useful as regards amputation made below the knee. It is now no longer good surgical practice, in injuries or diseases of the foot and of the lower part of the leg, to amputate at the former place of election—that is, four fingers' breadth below the tuberosity of the tibia. The more rational principle is adopted, to remove the offending part by incisions made as far as possible from the trunk, or from the centre of circulation. The former reason given for amputating the leg, in injuries or diseases of its lower third, was the necessity of having a short stump, in order that the knee might be more conveniently flexed and adjusted to the mechanical apparatus intended to serve as a substitute for the original limb. It was supposed that the knee bent would present the most suitable surface to rest upon the artificial member, such as those formerly in use. From this doctrine two evils resulted. In the first place, nearly two-thirds of the leg were sometimes unnecessarily removed; and in the second, the motion of the knee joint was unavoidably lost.

Artificial limbs, as they are at present made, are constructed

upon a different principle, so as to preserve the motion of the knee joint; and to attain this end, it is necessary to preserve the power of flexion and extension, and the capability also of maintaining the stump and the remaining portion of the leg in a straight position. These important points are to be accomplished by attention to the manner of fashioning the flaps or the incisions of the operation, to the care observed in applying the dressing, and to the position in which the limb is placed and maintained during the process of cicatrization.

It frequently happens, after amputation of the leg below the knee, from neglect of proper precaution, that the stump, or remaining portion of the leg, becomes permanently flexed, so that it cannot be extended in a straight line with the thigh; and, on this account, it is not possible to adjust an artificial limb made according to the recent improvements. Under such circumstances, it happens that a patient presents himself, some four or five months, or longer, after the amputation, to have the stump made capable of perfect extension by an operation. In such a case, it might be supposed that the flexion of the joint was maintained by the long flexors running from the pelvis to the upper part of the leg, such as the semi-tendinosus, the semi-membranosus and biceps.

A recent dissection which I had an opportunity of making upon a limb amputated many months previously, satisfied me that such was not the fact. The limb had been amputated about five inches below the joint by the posterior flap operation, and had been kept in a flexed position during the healing of the stump. When examined by me, it was found that the stump could not be extended farther than to make an obtuse angle with the thigh, although natural flexion could be easily effected. In a similar case, I had known the entire muscles bounding the popliteal region on both sides of the limb, to be divided without producing the desired straight position of the limb. The operation in this instance was performed for the purpose of effecting extension of the joint, preparatory to the adjustment of an artificial leg.

Observing the entire failure of the division of the muscles of the ham to change the mal-position of the joint, I concluded that the heads of the gastrocnemii or the ligamentary part of the joint must be at fault. The recent dissection I made in relation to this point verifies the supposition, that the joint is maintained in the state of permanent flexion by the action of the upper part of the gastrocnemius. While the dissection was being made, Dr. Gould, one of the House Surgeons to the Hospital, noted down the following details: The subject placed face downwards, the integuments and subcutaneous adipo cel-

lular layer of tissue were removed from the posterior surface of the lower half of the thigh and the posterior portion of the leg forming the stump. The fascia thus exposed was found perfectly healthy, neither contracted nor thickened. The sartorius was relaxed, and its tendon being divided, no extension of the limb could be effected. In like manner the tendons of the gracilis, semi-tendinosus, semi-membranosus, and biceps were divided successively, but still no disposition of the limb to become extended was manifested, although considerable force was used to effect this result.

The tendons of the above-named muscles were neither contracted nor bound down by effused lymph, thus proving conclusively that they were not the cause of the permanently flexed position of the knee joint. The ligaments of the knee joint were then closely examined, but not cut away; they also seemed perfectly natural. On severing a fold of the fascia lata attached to the external margin of the vastus externus, the leg yielded slightly, but by no means to any extent. Thus far everything had been removed on the posterior aspect of the thigh down to the bone, and nothing detected which could account for the obstinate flexion. The external head of the gastrocnemius was next separated from its insertion at the femur, and the leg yielded considerably; the internal head being also separated from its origin, the leg at once resumed the extended position to the full extent. The popliteus was found relaxed—the crucial ligaments slightly contracted from want of the natural movements.

The cause of the permanent flexion of the knee joint, after amputation of the leg, is thus clearly shown to be seated in the faulty condition of the upper portions of the gastrocnemii running between the posterior surface of the lower part of the femur and the extremity of the stump. The fascia lata may be slightly contracted; but the flexor muscles, which take their origin from the pelvis, and form the lateral boundaries of the popliteal region, are in no way implicated in maintaining the permanent flexion of the joint.

It is apparent, from what has been stated, that tenotomy of the ham string muscles would be unavailing to restore the limb to a straight position. The dissection of the heads of the gastrocnemii from their origin is an operation of too serious a character to be practised in such a case upon the living; and when the angle of permanent flexion is considerable, and has been of long standing, it is improper to resort to such mechanical violence as would be requisite to effect extension of the limb. It is better, under such circumstances, to use an artificial limb, which can be adapted to the flexed condition of the

knee joint. In order to preserve to the patient the power of full extension of the stump after amputation below the knee, attention must be given to maintain the extended position of the knee joint during the cicatrization of the stump; and by accomplishing this, an artificial limb can be adjusted to the stump, and in such a manner as to retain the free extension and flexion of the knee joint during progression—an advantage which, if possible, should always be secured to the patient.

[*New York Med. Gazette.*

On the Signification of the Milk-crust in Infants.

Dr. F. Van Willebrand observes, that, both among the profession and the public, the idea prevails that the milk-scab is innocent and curable, and that it is the result of an effort of the system to throw off some acrid scrofulous humour by the skin. He denies the scrofulous nature of the above-mentioned disease, and proceeds to offer some remarks upon scrofulosis generally.

Recent investigations, and especially those of Lebert (*Traité des Malad. Scrof.*), have shown that in scrofula there is no peculiar matter or deposit, nor any special disease of the organs; and that, therefore, we are not justified in regarding scrofula as a specific disease. The glandular swellings upon the surface of the body, which have for so long been regarded as characteristic of scrofula, are, as proved by Andral, Velpeau, and Rokitansky, only a secondary affection, which arises from irritation in parts from which the absorbent vessels proceed, but which may continue long after the cessation of the local irritation. As a cause of glandular swellings in the neck, the author mentions irritation of the mucous membrane of the mouth by dentition; in older children, by carious teeth; irritation of the Schneiderian membrane; chronic conjunctivitis, inflammation of the mucous membrane of the ear, inflammation of the brain (according to Griesinger,) and especially cutaneous eruptions of the head and face. The peculiar ramifications of the lymphatic vessels in the places here enumerated explain the frequent occurrence of glandular swellings of the neck in consequence of affections of the skin, in which the different degrees of irritability of the lymphatic system exercise a most important influence. As instances of glandular swellings occurring at a distance from the local irritation, the author mentions swellings in the axilla, consequent upon vaccination, and remarks, that he has seen glandular swellings, terminating in suppuration, in the neck from the same cause. As, however, a morbid irritation once excited in the lymphatic system may

spread after the cessation of the local cause, so may glandular swellings continue or increase after the cicatrization of the vaccine puncture ; a fact which the author affirms he has often witnessed. He considers these swellings in no way connected with the protective influence of vaccination ; on the contrary, he pronounces them the results of a morbid process complicating vaccination, and he deems it best for the health of the child to make as few punctures in the arm as possible, because many of them tend to excite glandular swellings. Although these enlargements of the cervical glands depend, in by far the greater number of instances, upon no corruption of the blood, but are secondary, and excited by different external causes, yet it cannot be denied that morbid conditions of the lymphatic system, let them proceed from whatever cause they may, exert a prejudicial influence upon the composition of the circulating fluid. All investigations, however, upon the deviations from the normal constitution of the blood in scrofula are valueless, because our conceptions of the disease are too fluctuating and arbitrary.

From the preceding, the author concludes that the milk-scab is not to be regarded as dependent upon scrofula ; he rather supports a totally converse view to that, which attributes a purifying effect upon the blood to these cutaneous eruptions. He thinks that most eruptions of a chronic character proceed from external causes, and he especially mentions eczema and impetigo. As external causes, he enumerates deficient attention to the skin, both dirtiness and excess of cleanliness, especially constant bathing in hard water, by which the integument loses its oil, so necessary for its lubrication and protection ; rubbing and irritation of the skin by rough coarse hands. The custom, in Finland, of washing and dressing children before a stove is to make up for the want of the sun's warmth. The author has often noticed the first appearance of an eruption after exposure of the child to a sharp raw air. As internal causes, he speaks only of dentition and disturbances of the digestive organs. The spread of eruptions he explains by the ramifications of the lymphatic vessels under the skin. The effect of prolonged irritation is to cause congestion and inflammation of particular spots of integument, upon which vesicles, and pustules, and other simple forms of skin disease may appear. For an example, he brings forward the itch ; the occurrence of eczema, after the application of blisters. No hypothetical acrid state of the blood is allowed by him under any conditions. All Dermo-pathologists agree that this eruption—viz. the milk-scab—so long as it is of limited extent, may be cured without harm, and, indeed, must be cured. But, when the disease has

existed for a long time, its sudden cure may seriously disturb the organism. The author mentions, as instances of what may ensue, inflammatory affections of the mucous membranes, especially those of the eye and ear; catarrh of the air-passages or of the alimentary canal, difficult of cure. He thinks that chronic cutaneous affections of the head confirm the disposition to congestion of the brain and its consequences in young children; but he does not consider it yet proved that the external inflammation is directly propagated to the dura mater by the freely anastomosing vessels of the cranium, which pass from the pericranium to the parts within the skull. Finally, such widely-diffused eruptions bring on disturbances in the digestive organs—a statement which is confirmed by the observation that the vasa chylica are inactive in proportion as the external integument is coated with a varnish, or any other application excluding the air. The practical rule in these diseases, to attend to the functions of the digestive organs, appears well grounded. The blood may become more serous in consequence of such digestive disturbances, and hence comes the tendency to watery effusions, œdema, etc. They may take place upon the brain or the lungs, and with imminent peril to life; most commonly in the latter organ, and in the advanced stages of cutaneous disease. Œdema of the lungs often alternates with hydrocephalus in children. The author does not consider it proved that the speedy cure of an eruption is attended by risk of such watery effusions. At all events, no such case is recorded by Hebra, although he used every means to produce the rapid clearance of the skin. But the author attributes Hebra's success to the custom of putting the patients into warm baths, or employing wet dressings, as is now the custom in some hydropathic establishments. He never employed salves or unctuous applications, believing that their constituent parts could become absorbed and act injuriously.—[*Med. Times and Gazette*, from *Finstra Läkare Sällskapets Handl.*

The Treatment of Erysipelas Analyzed. By Sanford B. Hunt, M.D.

I propose to bring the various remedies employed in the treatment of erysipelas to the test of a critical analysis, based on the ascertained facts of the disease; laying down first the proposition, that we should exhibit no remedies without knowing why we do so.

When a few years since malignant erysipelas first prevailed to an alarming extent in this section of country, the views of

medical men both as to its pathology and tendencies, and as to its treatment, were unsettled and unsatisfactory. The epidemic of 1844 and '5, was exceedingly fatal, as might have been expected in this state of medical opinion. Sundry points of pathology were at that time settled in the minds of thinking and observing men. Among these the following may be laid down as propositions, then verified and placed among the facts of the profession :

1st. Erysipelas is a contagious exanthem, originating in the presence of a specific blood poison, either conveyed into the system by contagion, or developed there by certain morbid processes not understood.

2d. The tendency of erysipelas is toward recovery by the self elimination of the blood poison.

3d. The action of this poison depresses the vital powers, but not usually to a fatal degree. When the poison is directed from the surface toward the nervous centers, we shall have symptoms much more alarming than when it expends itself in cutaneous inflammation.

Probably these propositions are no novelties, and will be readily acceded to by all who have carefully watched the disease in question. I shall not, therefore, enforce them by any argument, but shall confine the scope of this article to sundry deductions as to treatment, devised from these data.

1st. If erysipelas is a contagious exanthem, analogy would lead us to suppose that its management should be governed by the same rules which guide us in the other principal exanthemata, viz., scarlatina, rubeola, variola, varicella, and continued fever. All these disorders belong to the same family, and are subject to the same laws. All have their origin in contagion, though some of them may be self-developed. All of them depend upon blood poison as their cause. All are self-limited ; in all of them an abortive treatment is perhaps impossible ; in all of them the degree of danger depends upon the degree to which the nervous centers are affected by the poison ; and in all of them that treatment will be most successful which most favors the elimination of the specific poison. These analogies are worthy of consideration. We may argue with tolerable certainty from one to the other, and may readily conclude that one principle of treatment should govern the whole. And in the whole art of therapeutics no principle is better established than that depletion is inadmissible in all this class. Erysipelas is a blood poison. Therefore any merely local treatment must be generally insufficient. I say *generally*, because there are many cases in which this poison expends itself almost as locally as does vaccinia in its usual mild career. Of course, in such

cases local treatment will be not only sufficient but superfluous. Prof. Bennett saw in the Hotel Dieu, a number of cases which were receiving no treatment—M. Louis asserting that erysipelas of the scalp was never fatal. And this accords with all our pre-conceived notions of eruptive disease. When the eruption comes out fair, thus affording the best chance for elimination, when it occupies only its natural locality, the skin, and is thus uncomplicated with visceral inflammation, we expect a recovery *tuto, citoque, jucunde*, without much, if any medical interference, and the only judicious treatment in any of these diseases, is that which directs the morbid matter in common with the whole tide of circulation toward the surface.

The elimination of the specific poison of erysipelas is conducted by the usual emunctories—the skin and the kidneys. Free diaphoresis exerts a most favorable influence upon the progress of the disease, tending to shorten the process of elimination. The occurrence of desquamation, even when no bullæ exist, indicates the effusion of fluid beneath the cuticle, and it is not improbable that this effusion subtracts its quantum from the sum total of disease. The relative quantity of urea in the blood seems to have in this, as in all other exanthemata, an influence upon the severity of the disease. But what this influence is we do not know, though we may hope that with our present means of investigation, the thing may soon become clear.

In erysipelas, as in other desquamative disease, we find frequently—not always—the accompanying sign of albuminuria. This occurs at the period of declination, and depends upon the solution of the renal epithelium in the urine. That this is a part of the process of elimination is not proven, and it may be found to depend upon a local disorder of the kidneys, incident to the increased secretion of urea occurring at the period of declination. The plain indications of treatment derived from these natural phenomena, are to encourage the secretions of both the skin and the kidneys.

2d. The tendency of erysipelas is toward recovery. This is proven by the small average of deaths—the recovery of very many cases in which the disease has run its course uninfluenced by medication, and finally by the analogy derived from the natural history of other eruptive diseases.

3d. Whenever the symptoms become alarming it is not from the acute or destructive character of the inflammation, but from a depression of the nervous energy. Gangrene is of extremely rare occurrence. Abscess is more common, but still so unusual as not to be classed among the natural sequelæ of the disease. When erysipelas assumes a bad type, we find

the inflamed surface loses its lively red, and acquires a dark, purple hue; the skin is dry; the urine suppressed; the tongue has a dry, brown crust; the teeth are covered with sordes; the pulse grows frequent and fluttering; delirium and coma are present; in a word, we have typhoid symptoms. All this retinue of bad signs have their origin in a morbid impression on the great nervous centers, and we readily draw the indication of a supporting treatment. If the disease pursues its natural course, finding outlet by the skin and kidneys, we shall have the vital powers unimpaired, the reason clear, and the pulse—the great indicator of nervous disorder—undisturbed. But when from any cause, the poison is retained in the circulation, and goes on increasing by zymosis, we shall find that the brain becomes congested—that the disease has left its wonted channels, and is expending itself upon organs more important—upon the great moving power—the *nodus vitæ* itself.

It seems to me that if what I have advanced be true, we have a sufficient basis for a scientific and successful treatment of erysipelas, which by a parity of reasoning will apply to the other eruptive zymotics. It is not probable that those things yet unexplained will have the same important bearing upon treatment as the facts already in our possession.

Treatment.—Most of our systematic authors speak of bleeding as admissible, and even praiseworthy, in the country, but not admissible in the form seen in cities. But if what has been said about the tendencies of the disease to typhoid action, the little danger of an unfavorable result from the extent or violence of inflammatory action, and the importance of maintaining the nervous system in full vigor be of any moment, then is a bleeding in erysipelas as unphilosophical as in continued fever, variola, or any other exanthem. The safety of the patient lies in the activity and lively character of the local inflammation; for the extent of the inflamed surface is only an indication of the amount of blood poison and the activity of zymosis.

The diaphoretic treatment seems, at first view, to be theoretically and practically correct, as indeed it is. But to secure diaphoresis, we should not administer those drugs which, by their depressing influences, lessen the nervous energies—*e. g.*, antimony. There are, however, diaphoretics of a different class to which no such objections can apply, as the acetate, and carbonate of ammonia. Whiskey punch, which at first view would seem a good stimulant diaphoretic, is objectionable on account of the reaction and torpor of the nervous system following its use.

Diuretics are also indicated, but the antagonism of the skin and kidneys renders it difficult to meet both these indications at once. Perhaps colchicum, tending directly to the removal of urea, might be found the best diuretic.

But even these indications, important as they are, yield to the necessity, in serious cases, of supporting the nervous powers. Quinine is thus valuable, and here do we find what I conceive to be the true theory of Hamilton Bell's treatment by the Tinct. Ferri Muriatis. He himself argues that the capillaries are in an atonic state, and that the system being rapidly saturated by this powerful astringent, the atony is removed. Evidently if this were true, cold affusion would be equally successful. In the only case in which I have had the opportunity to observe the action of this remedy, it was commenced twelve hours after the appearance of the eruption. The pulse was 100, full, and firm. Fifteen drops of the muriated tinct. were given every two hours. A cathartic was given with the first dose. The patient was a blacksmith, aged 35. There was no other treatment, either general or local. Under the remedy he sweat profusely, and forty-eight hours after the treatment commenced, the pulse was 72 and soft, and the swelling, which had occupied the whole face above the mouth, closing both eyes, was declining. He convalesced rapidly. This is a single case. Perhaps a collection of cases might give a different result, though this case is similar to those reported by Dr. Bell in all particulars. In attempting to explain the action of the remedy we say this much: The iron is a good tonic, and is *prima facie*, as well adapted to the disease as quinine. Perhaps by the action of the iron, the nervous system is exalted to a pitch which enables it to exert its whole energies in throwing off the poison.

Cathartics.—Probably there is no case of erysipelas which will not at some time in its course, be the better for cathartic action.

Another corollary to our proposition is, that all local applications further than those tending to relieve itching and pain, are unnecessary and mischievous. If by local applications you cut short the inflammation, you lengthen correspondingly the disease. This may not hold true in a far advanced stage of the disease.

It will be seen that by this process of analysis from established facts, we rather subtract from, than add to our armamentaria against this disease. The whole treatment is reduced to a simple combination of tonics, diaphoretics, and diuretics. The peculiar remedies which have my preference I have indicated, viz., iron, colchicum and the acetate of ammonia; but it is

probable that other articles of the materia medica may fulfil the same indications, nearly, if not equally as well.—[*Buffalo Medical Journal*.

Sesquichloride of Iron, etc., in Erysipelas.

Many instances have lately occurred in the London hospitals, in which the treatment of erysipelas by the much-vaunted tincture of iron has appeared to be very successful, but none of the experiments have been sufficiently crucial in their character to warrant us in considering their results as conclusive. Still, however, the evidence in favor of the remedy is very strong. Some of the patients on whom it has been tried have been young children. With regard to local applications in this disease, it may be stated that the wrapping up the affected part in a large and thick sheet of cotton wool, appears to be very superior in its protecting influence to all others. In several severe cases of erysipelas of the scalp, lately, in St. Thomas's Hospital, Dr. Goolden had the whole affected parts smeared over with a thick coating of white paint. The patients did very well, but the remedy is not an agreeable one to use. It is, we believe, in common employment in some of the pottery districts, where erysipelas of the face and head, from the alternate exposure to cold draughts and to furnace heat, is very frequent.—[*Med. Times and Gazette*.

Pityriasis Versicolor curable by Local Application.

This common disease, known vulgarly as "liver spots," and in the nosology of Wilson as chloasma, is one generally acknowledged to be of extreme intractability. Mr. Paget, we notice, among his out-patients at St. Bartholomews, does not adopt any constitutional treatment whatever, but simply orders a wash of the bichloride of mercury (gr. j. ad ʒj). He informs us that he has never known a case long resist the influence of this remedy regularly applied to the whole affected surface once in the day. At the Skin Hospital, although an arsenical course of internal medication is always prescribed at the same time, yet a mercurial lotion is also used, and may possibly be the chief curative agent. In the hands of Dr. Jenner, at the University College Hospital, the sulphurous acid has, we understand, succeeded very well. There can be little doubt but that the disease is almost invariably curable by local applications solely (parasiticides?). In relation to this mode of cure, it is important to connect the observation of Eichstedt and others as to the eruption depending on the presence of a cryptogamic

plant. Another interesting link in the same chain of evidence has recently been made out at the Skin Hospital, namely, that it is not unfrequently contagious.—[*Med. Times and Gaz.*

Cure of Toothache by Emetics. By CESAR FREDERICK, of Ghent.

The pain caused by a carious tooth, observes the author, is sufficient to induce the sufferer to try every means for relief. Of all topical anti-odontalgics, creasote, as a cautery, appears to me to possess most advantage. But besides these remedies, there is one too much neglected in my opinion: I mean, the use of emetics. Ipecacuanha, given in a vomitive dose, in case of toothache, has been followed by a success wholly unexpected. It answered even in cases where the neuralgia has remained after the extraction of the tooth. Emetics constitute a valuable resource in cases of odontalgia without caries. There are many varieties of toothache. It may be symptomatic of other affections, or it may be produced by an ephemeral cause. Commonly the pain is attributed to the caries, but, if so, why should not the pain be permanent in a carious tooth? Why do not people suffer continuously? Some determinate cause must be at work for the production of pain; and this varies considerably. The author believes that gastric disturbance often coincides with odontalgia, and that the close sympathy which exists between the stomach and the brain, explains why a powerful impression made on the former should exert an influence on the nerves of the head.—[*L'Observateur des Sciences Médicales*, and *London Lancet*.

MISCELLANY.

Minutes of the Fifth Annual Meeting of the Medical Society of the State of Georgia, held in the City of Macon, April 12th, 1854.

MACON, GEORGIA, 12th April, 1854.

The Society met in Adelaide Hall at 10 o'clock, A. M., Dr. R. Q. DICKENSON, 1st Vice President, in the Chair. Dr. O'KEEFFE being absent, Dr. NOTTINGHAM was appointed Recording Secretary, pro tem.

On calling the roll, the following members answered to their names:

Drs. R. D. Arnold, of Chatham County; H. L. Battle, of Bibb Co.; Thos. W. Bell, of Houston Co.; J. R. Boon, of Bibb Co.; S. W. Burney, of Monroe Co.; H. Coe, of Fulton Co.; P. B. D. H. Culler, of Houston Co.; R. Q. Dickenson, of Dougherty Co.; L. A. Dugas, of

Richmond Co.; J. A. Eve, of Richmond Co.; M. A. Franklin, of Bibb Co.; J. M. Gordon, of Chatham Co.; J. M. Green, of Bibb Co.; W. S. Lightfoot, of Bibb Co.; C. B. Nottingham, of Bibb Co.; H. A. Ramsay, of Fulton Co.; R. C. Mackall, of Chatham, Co.

The minutes of the last annual meeting having been read, were confirmed.

On motion, the rules were suspended, and the following gentlemen, upon written application, were duly elected members of the Society, viz.—

Drs. D. W. Hammond, Macon, Bibb County; J. S. Weatherly, Palmetto, Campbell Co.; G. H. Cornwall, Hillsboro', Jasper Co.; F. M. Pitts, Indian Springs, Butts Co.; C. T. Woodson, Wilna, Houston Co.; J. S. Clements, Albany, Dougherty County.

The election of officers being next in order, a ballot was ordered, and the following gentlemen duly elected:

R. Q. DICKENSON, M. D., President.

S. W. BURNEY, M. D., 1st Vice-President.

J. M. GREEN, M. D., 2nd “ “

G. F. COOPER, M. D., Corresponding Secretary.

D. C. O'KEEFFE, M. D., Recording Secretary.

C. B. NOTTINGHAM, M. D., Treasurer.

On motion of Dr. ARNOLD, the election of Delegates to the ensuing meeting of the American Medical Association, was deferred for the present.

Reports having been called for, Dr. ARNOLD stated that he was prepared to report in the matter of Dr. H. A. RAMSAY.

Whereupon, Dr. DUGAS begged leave to state, that as soon as he learnt that he had been appointed on that Committee, he addressed a note to the President of the Society, declining to serve.

Dr. RAMSAY stated, that he had never been officially notified that any action was to be taken against him, and that he had never received any written communication.

Dr. ARNOLD replied that he had not sent any *manuscript* notice to Dr. Ramsay, but that soon after the publication of the Transactions of last year, he had had a copy mailed to Dr. R., at his residence.

Dr. MACKALL, Chairman of the Committee on Publication, then said that he had mailed a copy to Dr. R. in November last.

Dr. RAMSAY replied that he had not received a copy until February last, which was less than three months ago, and therefore he had not received the notification in the time required by the Constitution.

Dr. L. A. DUGAS offered the following preamble and resolution,

which, together with the whole matter pertaining to Dr. Ramsay's case, was, after some discussion, on motion of Dr. Nottingham, referred to a Committee of five, (Drs. Nottingham, Burney, Franklin, Mackall, and Gordon,) with instructions to report at the earliest practicable moment :

By Dr. DUGAS : Whereas, Dr. H. A. Ramsay affirms that he did not receive until last February the copy of the Transactions of this Society, which was mailed to his address in October or November last by the Chairman of the Committee appointed to notify Dr. Ramsay of the action of the Society in reference to the tender of his resignation : And whereas the Constitution of this Society requires that any member of the Society accused of a violation of its sections shall be notified of such accusation in writing three months anterior to the next regular meeting :

Resolved, That the whole subject be now laid upon the table, and that the resignation tendered by Dr. Ramsay be accepted.

Dr. MACKALL offered the following resolution :

Resolved, That the President appoint a Committee of one from each Congressional District represented at this meeting to prepare business for the Society. (Passed.) The President reserving the appointment until the afternoon meeting.

On motion the Society adjourned to half-past three o'clock, P. M.
C. B. NOTTINGHAM, Rec. Sec'y, pro tem.

AFTERNOON SESSION.

Society met at half-past three o'clock. The President called to order and business was resumed ; requested Committees to report according to Article 5th of Constitution.

The President having called for reports from auxiliary societies, Dr. H. COE stated that the report of the auxiliary society of De Kalb County was ready, and in the possession of the proper officer, who had been detained on account of sickness.

REPORTS FROM SPECIAL COMMITTEES.

1st. Dr. Dugas, after stating the general purport of his report "On the relative value of Lithotomy and Lithotritry," was, on motion, permitted to amend it, and hereafter to submit the same to the Committee on Publication.

2nd. Dr. J. A. Eve made a report on the use of anæsthetic agents in obstetric practice. Report received and referred to the Committee of Publication, with a request that the author add cases illustrative of the report.

Dr. Arnold presented the excuse of Dr. P. M. Kollock for failure of his report.

Dr. Nottingham presented the report of the Committee on Dr. Ramsay's case, which was as follows :

We, the Committee appointed to investigate the charges preferred by the Medical Society of the State of Georgia, against Dr. H. A. Ramsay, in consequence of his voluntary retraction of all harsh epithets and accusations, charging the Society with corruption, hereby recommend the adoption of the following resolution :

Resolved, That the difficulties heretofore existing between Dr. H. A. Ramsay and the Medical Society of the State of Georgia have been amicably and honourably adjusted.

C. B. NOTTINGHAM,	} Committee.
R. C. MACKALL,	
S. W. BURNEY,	
M. A. FRANKLIN,	
J. M. GREEN,	

DR. RAMSAY'S RETRACTION.

Believing that the various charges of cliquism and corruption, which I have from time to time preferred against the Medical Society of the State of Georgia, have had their foundation in a misconception of what has in fact been the action of that body in reference to me and my publications, I respectfully beg to say that I have done the association injustice, and hereby unconditionally recant all matter which may be found in a Pamphlet issued by me (in the form of an Address to the Medical Profession) in 1852; in an Essay designated the "Necrological appearances of Southern Typhoid Fever in the Negro"; as well as in any anonymous publications that I may, at any time, have penned, which may be considered as disrespectful or offensive to the Society.

H. A. RAMSAY.

Macon, Ga., April 12th, 1854.

The above Report and Retraction were received and accepted by the Society.

Dr. Wm. Bunn, of Wilna, Houston County, was elected a member of the Society.

The President announced as the Committee on Business, consisting of one from each Congressional District represented at this meeting the following gentlemen :

1st. Dr. R. C. Mackall; 2nd. Dr. J. S. Clements; 3rd. Dr. Harrison; 4th. Dr. Coe; 5th. Dr. Weatherly; 7th. Dr. Cornwall; 8th. Dr. Dugas.

Drs. G. F. Cooper, of Sumter County, and D. C. O'Keeffe, of Greene County, arrived and took their seats as Secretaries of the Society.

The following statement and report on the finances of the Society were submitted by the Treasurer :

STATEMENT.

C. B. NOTTINGHAM,

1853-'4.

In Acct. with Med. Soc. State of Georgia.

To Cash of Dr. S. W. Burney, former Treasurer,	\$60 00
" " " " R. C. Black " "	15 57
" " " " J. F. Alexander. " "	20 00

\$95 57

To Cash arising from Initiatory Fees,	\$24 00
" " " " Assessment of 1852,	50 00
" " " " " " 1853,	198 00—
	272 00
	<hr/> \$367 57

By Cash p'd J. T. Blain, for Trans-	
actions of 1852,	\$202 00
" " " Sundry Pap'rs for adv'ng	24 70
" " " Postage,	49
" " " Dr. Mackall Ch'man Com-	
mittee Publication, 1853,	102 10
" " " Ga. Tel. for Circulars &c.	5 50
" " " Fr't on box 'Transac. 1852,	50
" " " For Treasurer's Ledger,	1 80
" " " For Cash Book.	1 00—
	338 09
	<hr/>
Balance—	\$ 29 48

Macon, Ga., April 12th, 1854.

The Treasurer of the Medical Society of the State of Georgia, begs to make the following

REPORT.

In compliance with a resolution passed at the last annual meeting, I early, after my return from Savannah, issued a Circular to all the members of the Society, who were in arrears under the several acts or assessments, stating the amount of their dues, &c. Many of them responded promptly to my notice. I regret, however, that some have, in their forgetfulness, entirely overlooked their obligations; so that the dues remaining unpaid amount to about four hundred and seventy (470) dollars. The Society is, I am happy to say, nevertheless, out of debt, and has a small surplus in the Treasury.

I also addressed, as instructed, a communication to Drs. Burney and Alexander, former Treasurers, calling upon them for a settlement, and am pleased to say that they both turned over to me the funds in their hands.

All of which is respectfully submitted.

C. B. NOTTINGHAM, Treasurer.

The report was received and referred to a Finance Committee, consisting of Drs. Arnold, Burney, and Bell, who reported as follows:

The undersigned, the Committee to whom were referred the accounts of the Treasurer, respectfully report that they have examined them and the accompanying vouchers, and find them correct.

RICHARD D. ARNOLD,
THOMAS W. BELL,
S. W. BURNEY, } Committee.

On motion of Dr. HARRISON, an assessment of one dollar each was levied to defray expenses of current year.

Dr. MACKALL, by request of Dr. J. J. ROBERTSON, presented the following resolution, which was passed :

Resolved, That a Committee of eight, one from each Congressional District, be appointed by this Society to investigate the question—what quantity of Opium, and preparations from Opium are sold and used in the State of Georgia for non-medicinal purposes.

Committee.—8th District, Dr. J. J. Robertson, Wilkes Co.; 1st. Dr. R. C. Mackall, Chatham Co.; 2d. Dr. J. Killman, Lee Co.; 3d. Dr. D. W. Hammond, Bibb Co.; 4th. Dr. R. F. Stell, Fayette Co.; 5th. Dr. S. J. Word, Floyd Co.; 6th. Dr. C. W. Long, Clark Co.; 7th. Dr. A. Means, Newton Co.

On motion, the Society adjourned to 10 o'clock to-morrow morning.

THURSDAY MORNING, 10 o'clock

The Society met pursuant to adjournment, the President Dr. DICKENSON, in the Chair.

Minutes of yesterday were read and confirmed.

Dr. A. Means, of Newton Co., and Dr. Ira E. Dupree, of Twiggs Co., appeared and took their seats as members of the Society.

The first business requiring action, being the election of Delegates to the approaching meeting of the American Medical Association, the following gentlemen were duly elected :

DRs. W. M. Charters, of Chatham County; Juriah Harriss, of Richmond Co.; W. B. Jones, of Fulton Co.; Ed. Fitzgerald, of Houston Co.; R. C. Word, of Floyd Co.; W. S. Lightfoot, of Bibb Co.; R. C. Mackall, of Chatham Co.; A. Means, of Newton Co.; D. W. Hammond, of Bibb Co.; I. E. Dupree, of Twiggs Co.; H. R. Casey, of Columbia Co.; W. L. Jones, of Morgan Co.; R. D. Arnold, of Chatham Co.; H. J. Oglesby, of Morgan Co.; D. C. O'Keeffe, of Greene Co.; S. W. Burney, of Monroe Co.; C. T. Woodson, of Houston Co.; M. G. Slaughter, of Cobb Co.; J. R. Boon, of Bibb Co.

On motion of Dr. DUGAS, each Delegate to the American Medical Association was authorized to select an alternate in case he could not attend.

On motion, the rules were suspended, and Dr. R. H. Nesbit, of Bibb County, on written application, was elected a member of the Society.

On Motion of Dr. J. M. GREEN :

Resolved, That a Committee of three be appointed to consider whether the constitution requires any changes, or amendments, and that the said Committee report at the next meeting of the Society. (Drs. J. M. Green, Thos. W. Bell, H. Coe, Committee.)

A report was read from Dr. T. S. Denny, Secretary DeKalb County Auxiliary Society, which, on motion was received.

In reference to said report, Dr. ARNOLD stated that this Society was not a representative body ; that every duly qualified physician has a right to its membership, and consequently that there is no need of sending Delegates from Auxiliary Societies.

A letter of resignation from Dr. B. O. Jones of Fulton County, was read by the Treasurer ; whereupon Dr. ARNOLD moved to grant his petition after he shall have paid his dues. (Carried.)

Dr. L. Holt arrived and took his seat.

Dr. H. A. RAMSAY signified, through the President, his desire to withdraw his letter of resignation, which he had tendered last year.

On motion, his petition was granted.

The following Communication was read and received from the New-Hampshire Medical Society, viz :

“ At the Annual meeting of the New-Hampshire Medical Society, holden at Concord, June 1, 1853, the following Resolutions were unanimously adopted :

Resolved, That it is the decided opinion of the New-Hampshire State Medical Society that no Delegate should be admitted to membership in the American Medical Association, who represents a Medical Society which numbers among its members any person or persons who adopt as their system of practice any form of empiricism.

Resolved, That the Secretary of this Society be instructed to transmit a copy of this Resolution to the Secretaries of each of the State Medical Societies, and to the Secretaries of the American Medical Association, previous to their next Annual meeting.”

E. H. WEBSTER,
Sec. N. H. Med. Society.

Boscawen, June, 1853.

Whereupon, on motion of Dr. ARNOLD it was

Resolved, That this Society concur with the Resolution of the New-Hampshire Medical Society, and that it adopts it ; and that its Secretary be requested to transmit a copy of the proceedings in this matter to the American Medical Association at its ensuing meeting in May next, and also to the New-Hampshire Medical Society.

The Committee on Business reported the following subjects and essayists for the next Annual meeting :

1. On the relations between Remittent and Yellow fever. Dr. R. D. Arnold.
 2. Diseases of the Cervix Uteri. Dr. J. A. Eve.
 3. On the connection of Pneumonia with Remittent fever in the South. Dr. L. D. Ford.
 4. Upon the Diseases of the Spinal Marrow. Dr. C. B. Nottingham.
 5. Typhoid fever as it prevails in Georgia. Dr. R. C. Word.
 6. Relations of Epidemic Dysentery to Remittent and Typhoid fever. Dr. D. C. O'Keeffe.
 7. Is Urinary Infiltration necessarily followed by Sloughing. Dr. S. N. Harris.
 8. On the treatment of Strictures of the Urethra. Dr. L. A. Dugas.
 9. On the use and abuse of the Speculum Uteri. Dr. G. Harrison.
 10. Upon the value of Diet in the Management of Disease. Dr. G. F. Cooper.
 11. On the Causes of Abortion. Dr. J. M. Green.
 12. On the Influence of the Culinary Art upon Health. Dr. R. C. Mackall.
 13. On the Operation for Lacerated Perineum. Dr. J. M. Gordon.
 14. Changes in the diseases of the State of Georgia during the last thirty years, and in their treatment. Dr. R. Q. Dickenson.
- Dr. DUGAS moved that each essayist be authorized to select an alternate in case he cannot perform the duty assigned him. (Carried.)
- On motion of Dr. DUGAS, Dr. H. L. Battle of Macon was appointed Orator for the next annual meeting, and Dr. R. H. Nesbit of the same place his Alternate.

On motion, it was decided that the Annual Address be delivered at 12 o'clock on the second wednesday in April next.

On motion to select a place of meeting for next year, a considerable discussion sprung up, in which many of the members participated. Finally, it was, on motion of Dr. ARNOLD, unanimously agreed that the city of Columbus be selected as the place for the next annual meeting.

Drs. Thos. Hoxey, Wm. Flewellen and F. A. Stanford were appointed the Committee of Arrangements.

On motion of Dr. NOTTINGHAM a committee of three (Drs. Nottingham, Hammond, and J. M. Green,) was appointed, to whom shall be referred the Transactions of this meeting, with power to print, or not to print, such portions of the same as may seem to them proper.

On motion of Dr. ARNOLD, the Recording Secretary was directed to have published with the forthcoming Transactions, a corrected list of the members of the Society, together with their address, and a proper indication of the deceased members.

On motion of Dr. DUGAS, the Committee on Publication were instructed to publish the Constitution and By-Laws with the proceedings of this meeting.

On motion of Dr. ARNOLD, it was

Resolved, That the following Amendment be made to the Constitution :

RESIGNATIONS.

All resignations shall be tendered to the Society in writing, and no resignation shall be accepted until all dues to the Society shall have been paid.

On motion of Dr. MACKALL :

Resolved, That the thanks of the members from abroad, present at this annual meeting of the Medical Society of the State of Georgia, are due, and are hereby cordially tendered to their medical friends of the city of Macon for the politeness and courtesy with which their arrival in this beautiful city was greeted, and the kindness and hospitality which has rendered their short sojourn so entirely agreeable.

The minutes having been read and confirmed, on motion, the Society adjourned *sine die*.

D. C. O'KEEFFE, Recording Secretary.

Greensboro', April 21st, 1854.

American Medical Association.—The St. Louis papers contain full reports of the proceedings of the National Medical Convention, which convened in that city on Tuesday, May 3d.

After the delivery of an address from Dr. Washington, of St. Louis, welcoming the members to St. Louis, and a speech from the senior Vice President, and the usual preliminary business, the following officers were elected :

Charles A. Pope, M. D., of Missouri, President. Vice Presidents : E. D. Fenner, M. D., of Louisiana ; N. S. Davis, M. D., of Illinois ; Wm. T. Wragg, M. D., of South Carolina ; John Green, M. D., of Massachusetts. Secretaries : E. S. Lemoine, M. D., of Missouri ; Frank West, M. D., of Pennsylvania. Treasurer : D. F. Condie, M. D., of Pennsylvania.

On the second day the reports of the various standing committees were read. These are generally elaborate papers upon important medical subjects.

The committee on the prizes offered by the association reported that they had resolved to award but a single prize, and that would be to Professor Daniel Brainard, of Chicago, the author of the essay

entitled "An essay on a new method of treating ununited fractures and certain deformities of the osseous system."

Resolutions were unanimously adopted commending the suggestions of the Secretary of the Treasury to abolish, or materially modify the duty on such crude drugs, not producible in this country, as are used in the laboratories of the country in the manufacture of chemicals.

Dr. Mendenhall, of Ohio, read a report on the epidemics of Ohio, Indiana and Michigan, during the years 1852 and 1853.

Dr. Holmes, of Missouri, read a paper on erysipelas.

Dr. Fenner, of Louisiana, read a report on the epidemics of Louisiana, Mississippi, Texas and Arkansas, with particular reference to yellow fever and cholera.

Dr. Linton, of St. Louis, gave his views on yellow fever, in which he repudiated the idea of malarious influence in producing the disease, and attributed it to heat and northern blood.

Dr. Davis read a report on typhoid fever.

Dr. Davis, of Illinois, called attention to the necessity of supplying large cities and towns with wholesome milk, and referred to some specimens of milk prepared, so as to make a voyage of any distance without losing its nutritive qualities. This was tested with perfect success by Dr. Kane on the Arctic expedition.

On the third day, a resolution on spirituous liquors was referred to Dr. Mussey, of Cincinnati.

Dr. W. S. Edgar offered a resolution in regard to the compounding of medicine, and recommending apothecaries to use different colored paper in putting up poisonous drugs, with an appropriate stamp upon it, in contradistinction to other medicines.

[From the New Orleans Medical and Surg. Journal.]

*Prof. J. L. RIDDELL's Opinion on the Causes of Yellow Fever, &c., &c.
To the Sanitary Commission of New Orleans:*

Gentlemen—In compliance with your resolution of Dec. 21, I have the honor to present you the accompanying records of testimony, respecting the origin and spread of Yellow Fever this year, in some of the Southern towns, as high up the Mississippi as Lake Providence.

Deep interest is universally manifested in the labors of our commission; and all possible facilities were tendered me in the prosecution of my inquiries. My constant regret has been, that want of time would not permit me to prosecute them further.

Of course I found conflicting opinions, and now and then statements more or less contradictory; yet from all, as well as from data previously in possession, it appears to me the following inferences are deducible:

1st. That our yellow fever of 1853 has not been personally contagious; that the poison, virus or material cause producing it, does not emanate in an active condition from the person of the patient laboring under the disease.

2d. That the disease has been marked by characters of infection

and infectious communicability, the poisonous matter (doubtless some species of living organism) maturing its germ or spores on the surface of solids devoid of life, surrounded by confined or impure air; which germs become diffused in the impure atmosphere.

3d. Three peculiar conditions seem to favor the developement of the infection. 1st. The absence of ozone, the great chemical promoter of oxidation, which absence permits the undue developement of obscure cryptogamic life. 2d. Abundant emanations from decomposing and disintegrating organized matters, complex products, gaseous, liquid and solid, the pabulum or blastema of cryptogamic growths. 3d. The presence of the specific organism, whose perfected spores constitute the material cause of yellow fever,

4th. That the towns and plantations of the Southwest have this year derived their yellow fever from New Orleans.

5th. That although black vomit fevers or types of yellow fever may perhaps originate in this region, yet that the germs of our epidemic of 1853, have probably been derived from countries further South.

6th. That the mixture of equal parts by weight, of black oxide of manganese, sulphuric acid and water, which in the cold will continue for many days to develop ozone, promises to be the most convenient, most economical and most efficient disinfectant ever used; and therefore deserves hereafter a fair trial.

7th. It is proper and feasible for New Orleans to have some kind of quarantine in certain months of the year, which will exclude filthy persons, filthy clothing and filthy ships, until they are fumigated; and goods from West Indian, South American and Mexican ports, until they are fumigated.

8th. The city should be kept cleaner than heretofore, by efficient drainage, and sanitary regulations carried into effect.

9th. Legal ordinances should be framed and carried into effect, to prevent the undue huddling together of human beings within the limits of the city.

Respectfully,

J. L. RIDDELL,

Member of the Sanitary Commission of New Orleans.

New Orleans, January 1, 1854.

Uses of Strychnia.—Perusing a reference to Dr. Corson's late paper on functional disease of the heart, we noticed an allusion to his use of strychnia in debility of the heart.

This drug is but little in use among the generality of practitioners. Probably its active poisonous nature has deterred them; yet it is no more dangerous in its use than many other drugs which we employ without hesitation. Early in our practice we prescribed the solution of strychnia in acetic acid, in a number of cases of habitual constipation with very satisfactory results. We looked upon the constipation in these cases as a result of debility, inaction, or perhaps partial paralysis of the muscular coat of the intestines. By restoring vigor to the muscular tissue we reinstated the function of the bowel.

All those who have made nervous disease a subject of special study, are inclined to enlarge its boundaries, and to include the nervous pathology in many of those diseases considered as purely zymotic. But it is evident that blood poison operates not unfrequently, (and perhaps always) first upon the nervous system. And it is the ganglionic system which is especially affected by these poisons. The elimination of the poison is a natural process, but its rapidity must depend very much upon the integrity of the nervous centers which govern secretion. It is from looking at the subject in this light, that we were first enabled to recognize the philosophical nature of the quinine treatment in typhus. This theoretical opinion has since been confirmed by actual observation.

Now there is no great difference in the actions of quinine and strychnia. Both of them are stimulants directed especially to the ganglionic system; both are, *therefore*, anti-periodics, and they differ only in relative activity. Cases of typhoid fever occurring under the care of Prof. Rochester at the Buffalo Hospital of the Sisters of Charity during the past winter, which were in that low, sinking condition, verging towards coma, and marked by great debility of those organs depending on the ganglionic system for life, were greatly benefitted, and apparently saved by the administration of strychnia.

We have not space to pursue this matter further, but we express our conviction that strychnia is a remedy of application almost as universal as brandy or quinine. In another number it is our intention to write more fully upon it.—[*Buffalo Medical Journal*.

Gonorrhœa.—Dr Boinet (L'Un. Méd., Sept.) speaks highly of the effect of tincture of iodine when applied to the mucous membrane of the vagina in the gonorrhœa of women; a *single* application was sometimes sufficient. At the same time a solution of equal parts of tincture of iodine and water was injected into the urethra, but was not allowed to penetrate into the bladder. Dr. Boinet has employed the local application of iodide in inflammations and ulcerations of other mucous membranes, and with great success.—[*British and Foreign Med. Chir. Review*.

Gout.—Dr. Goolden (Med. Times & Gaz., Nov.) uses with good effect, as a local application, spirits of wine. The relief to the pain is said to be sometimes very great. In the same journal the utility of an old remedy, the carbonate of soda, as a local application in gout and rheumatism, is referred to. A drachm of the carbonate is mixed with a hot bread poultice, and applied over the joint.—[*Ibid*.

Menorrhagia.—In cases of abundant menstrual flow without physical uterine lesion, Dr. Tanner speaks highly of the effect of tincture of cinnamon, in drachm doses in cinnamon water every six hours.—[*Ib*.

Neuralgia.—Periodic neuralgia of the face and head have lately been common in Paris, and have occasionally withstood the action of

quinine. M. Aran (Bull. Gén. de Thér., 1854, ii. p. 84) has employed in such cases the aconite in large doses. The preparation employed was the extract of the French Codex.—[*Ibid.*]

Grave-Yard Poison.—The following paragraph is copied from a late number of the London Lancet, and is a specimen of many cases that are reported, showing conclusively that intramural burials may be injurious to the living, in large towns and populous cities. “Dr. Sutherland, one of the grave-yard inspectors to the Home Office, has been seriously indisposed from inhaling poisonous gas, the escape from decaying corpses in a grave-yard that he inspected. He is however now recovering. Dr. Walter Lewis is ill from the same cause.”—[*Ib.*]

Died, in Boston, March 18th, Dr. Geo. C. Shattuck, in the 71st year of his age. Dr. S. was a man of great professional and personal worth, as well as a liberal patron of Dartmouth College and Harvard University.

Legacies of the late Dr. Shattuck.—It will be recollected that mention was made in this Journal, sometime since, of a donation of \$14,000 by Dr. George C. Shattuck, towards sustaining the professorship of Morbid Anatomy in Harvard University. At his death it appears by his will that he has given \$10,000 more to the same institution; but the specific object to which it is to be appropriated, we have not yet learned. In addition to the above legacy, he has given the third of the income of certain manufacturing stocks for three years to the Massachusetts Medical Society, of which he was once the honored President. It is said that this income will amount to *ten thousand dollars* in the three years. Besides the above legacies, he gave some \$40,000 to several charitable and religious societies in this city.

[*Boston Medical and Surgical Journal.*]

Too good to keep!—A newly appointed Professor of Theory and Practice in a Western medical school, more familiar with politics than physic, started on a pilgrimage to the east. At Buffalo he called upon one of the magnates of the profession. In the course of the conversation the *nouveau né* Professor inquired as follows: “Can you tell me, Sir, what there is about this matter of physical diagnosis? Is it really, now, worth knowing?”

The host indicated very politely that it was, perhaps, desirable that *teachers* should have some knowledge of it; whereupon the newly elected one said “that if it was really worth while, he would go down to New York for a fortnight, and acquire it. For his part he hadn’t much faith in it.”

Whether or no our ambitious teacher followed the advice of his host, “to go by all means,” we cannot say.—[*Buf. Med. Journ.*]

Prof. Roux, the Nestor of French surgeons, died in Paris on the 23d March, in the 74th year of his age.

SOUTHERN MEDICAL AND SURGICAL JOURNAL.

Vol. 10.]

NEW SERIES.—JULY, 1854.

[No. 7.]

ORIGINAL AND ECLECTIC.

ARTICLE XX.

Remarks upon the Vertex Presentations of the Fœtus. By
C. C. HOWARD, M. D., of Lowndesboro', Ala.

Professor L. A. DUGAS :

Dear Sir—The principal object of this communication, is to offer some theory, to account for the great frequency of the first position, Vertex Presentation of Baudelocque ; and so little do I find on the subject, in the obstetrical works examined, that I indulge the hope that this paper will be read with some interest, if derived alone from considerations of its novelty.

Before proceeding, however, I desire to say, that the two most prominent opinions as to the cause of the relative frequency of the *head* presentation, I regard as very improbable. The first, as well, perhaps, as the most generally received opinion, to which reference is made, is that the child is dependent from the cord, and the attachment of the navel string being nearer to the pelvis than to the head of the child, the head therefore hangs downwards.

In the latter stage of pregnancy, the child certainly cannot present the cranial or caudal extremity, as if by chance ; yet, in the earlier stage of pregnancy, this can be done, as is implied in the opinion disagreed to. This ready possibility of the fœtus to be turned in the uterus, I have no doubt, exists long after the

cord is entirely too long to suspend the fœtus, if, indeed, it ever did. This, therefore, is of itself sufficient reason for me to reject the theory. The uncertainty, too, of the point of the placental attachment, presents strong objection to it; both of which objections are urged by others. But, the character and known office of the cord present other and insuperable objections to the theory. What is more improbable, than that two or three little blood-vessels would be used in this *way*, to accomplish so important an end, as that, the accomplishment of which is so necessary to the population of the world? What can be more important than to keep up a healthful and regular circulation between the fœtus and placenta? And what would be better calculated to disturb this circulation than this very suspension?

The other somewhat prominent opinion, to which I desire to offer some objection, is that advanced by M. P. Dubois, in a memoir read at the Academy of Medicine in 1833, as I learned from M. Chailly's work on Midwifery, page 64—viz: "An instinctive determination of the fœtus itself presides over the accomplishment of this law, and this instinct is proved," &c. It is an almost universally admitted fact, that the head of the fœtus in utero is not only usually downwards in the *last* periods of gestation, but in the *earlier* also; and that after the sixth month, changes from one presentation to another are not frequent. If, therefore, instinctive determination of the fœtus presides over this matter, does it not do so at an astonishingly early period of its existence—even before it possesses sufficient strength to make itself felt by the highly sensitive and ever watchful female, carrying it? I submit then, that this decision is made at too early a period, even for instinct. But, admitting that the fœtus is instinctively led to select this position, what power has it at three or four months of intra-uterine life to assume it? Even at birth, and for weeks after, it is so feeble, that if you place it in one position it cannot assume another. How, then, I ask, is it possible for the fœtus, unaided by gravity, to assume that most difficult of all positions, viz., the inverted? Aye, more, to put its head to a certain point and keep it there, opposed by the force of gravity. The new born infant has strength to seize the mother's breast and

extract nourishment from it; the young of the opossum may graft themselves on the tits of their mother; but the fœtus perform the manœuvres mentioned above: never, never.

Is it not much more reasonable, than either of the theories remarked on, to suppose that the embryo *approaching* a state of floating in the liquor amnii (as it does), and being easily agitated in that liquor by the movements of the mother (as it is), under the force of gravity finds a resting place, and the cranial extremity being heavier than the caudal, thereby much oftener obtains and occupies the region of the os uteri? Says Moreau, page 96, (speaking of the first theory,) "This mechanical explanation would be satisfactory and readily admitted, 1st, if the insertion of the umbilical cord were the same at all periods of intra-uterine life; 2d, if this cord were shorter than one half the body of the fœtus; 3d, if the placenta were always inserted into the fundus of the uterus; so that the fœtus would be constantly fixed to the fundus of the organ, and suspended in the amniotic fluid by a very short cord." These objections to the theory founded on suspension by the cord, are the valid objections, which, however, in that last proposed are removed, by attributing all necessary suspension to the liquor amnii. The difference between the two theories being in the means of a partial suspension, it may be well to notice two or three objections made by M. Dubois to the first theory, as they will apply with equal force to the last. 1st, the fact, "that he has repeatedly plunged, horizontally, into a quantity of water, a dead fœtus, and has uniformly observed that all the parts of the fœtus descend with equal rapidity," has no bearing on the question; for neither gravity, nor the instinctive effort of the fœtus, nor any other ordinary influence would cause the head to remove from the fundus to the os, since the longitudinal diameter of the fœtus, is much greater than the transverse diameter of the uterus, at full term. Besides, this objection is entirely yielded in a fact involved in this 2d objection: "Before the full term, head presentations are less frequent, although, at this period, the head is really heavier than the pelvic extremity." But why are head presentations less frequent in premature labours? They ought not to be, if instinct presides over this matter; for the law of instinct is a very certain and safe law. So is the law of gravity; and if this

last governs in this case, we ought to expect that head presentations would be less frequent in premature labours; because, the cavity containing the fœtus is much more spheroidal in the first six months of gestation, than in the last three. 3d. He still further adds, says M. Chailly, (for I have never seen the memoir,) that "in women who, during their pregnancy, retain the horizontal posture, the fœtus as commonly presents the head." Though there would be some decided difference in the position of the uterus, whether the woman be in the horizontal or vertical posture during pregnancy, yet, "in* both cases the os uteri, in consequence of the inclination forward of the pelvis, is" (usually) "the most depending part of the organ." Again: it must, I think, be a very small number of women who, in any strict sense, during their pregnancy retain the horizontal posture. 4th. In fœtuses who have a tumour on the pelvic extremity, the tumour being even heavier than the head, this latter still presents. Like the cases just referred to, these last are very rare, and it is not shown by any means, that, in a number of such cases, the proportion may not be changed: the position may be determined before the tumour destroys the usual relation of weight. Lastly, those accidental causes which sometimes carry the head to the fundus, might, under reversed circumstances, carry the breach there.

Concerning the objection, "that in animals, where the inferior portion of the organ does not correspond to the cervix, but to the fundus, head are more common than footling presentations," I cannot speak advisedly. But even if it is so, without any modifying influence, I do not see in that any sufficient reason for rejecting a theory, in so many respects plausible, when applied to a very different animal. Notwithstanding so much more space has been occupied with the question of the cause of *head presentation* than was intended, yet, before entering on the subject proper, I desire also to refer to the cause of the *presentation of the vertex*—not that I have anything whatever new to say on that subject; but, because it may enable the reader more readily to comprehend the theory about to be proposed.

In consequence of the relative size of the fœtus and the cavity it occupies, it is compelled to fold itself up in some way, in order

* Moreau.

to find accommodation, ordinarily. The most natural, indeed the only natural way of doing so, is by flexion, thus: the thighs are bent on the abdomen; the legs on the thighs; the arms on the breast; the chin approaching the breast, and the entire spine more or less flexed. Now, as labor begins and progresses, so, the relative size of the fœtus and the cavity in which it is contained is diminished, and before the uterine contractions are sufficiently great, to thrust any part of the fœtus into the superior strait, the chin has been compelled to approach the breast, so that the vertex becomes the cranial pole. But the vertex not only becomes a pole, for the uterus, compelling the diameters of the fœtus to correspond with its own diameters, the vertex farther becomes the presenting part.

Allow me now to say, that the fœtus can have little to do, by instinct or otherwise, with its birth or position in the uterus, but acts as it is acted on. Farther, that it is not from mere chance that we have one position oftener than another, or that it is so merely because it is so, i.e., that there is a natural law consisting of the *abstract* will of the Creator; but, that the manner in which a fœtus presents in parturition is determined by its relation to the cavity it occupies, and this relation is such, that those presentations and positions which are most favorable to the mother and the child, always have been, and will be, infinitely the most frequent. We are not to understand, then, that the 1st position of vertex presentation is to be expected, merely because it has been the most frequent heretofore; and we are not to practice the art of midwifery ten or twenty years, before we acquire confidence in this expectation; but, in my humble opinion, we are to expect this position in consequence of appreciable influences, generally existing. What those influences are, it is the object of this paper to define.

That the reader may see the points aimed at, it may be well to say at once, that the theory about to be proposed rests upon a certain relative configuration believed to exist between the fœtus and the cavity in which it is contained; which cavity has for its walls, not only the uterus, but the abdominal walls also. Added to this configuration is the force of gravity.

Let us now turn our attention to the shape of a fœtus folded up in utero, as it is compelled to be to find accommodation. Is

it not evidently erroneous to assume, that the lateral and antero-posterior diameters of this body are of equal length? With the chin approaching the breast, and the spine flexed—admitting that the anterior face of this fœtus is curved at all—is it not certain that the line describing that curve, is not equal to the line describing the certain curve of the posterior face? If these questions are answered in the affirmative, (and they ought to be,) it is seen at once, that this folded up fœtus does not form an oval, as is sometimes said. But, for lack of a better term, we consent to call it an ovoid, flattened on three sides, viz., anteriorly and laterally. It would be fortunate for me had I the advantage of plates; but it must suffice to refer to any of the plates in our midwifery works, shewing the 1st position of a fœtus in utero, head presentation. When the chin is removed from the breast, the fœtus more nearly approaches an oval; but before, the posterior line from pole to pole, never should be mistaken for the anterior line from the same point to the same point. The above description is certainly very imperfect, and very far from being satisfactory to the writer; but the light in which the shape of the fœtus in utero is to be viewed, is so far indicated, that the indulgent reader will obtain the general idea, and form, in his own mind, a distinct notion of said shape, which he is now requested to do; and I ask, can he doubt that said fœtus can be better accommodated, when looking towards a vertical line intersecting the right sacro-iliac symphysis, than in any other position?

But let us proceed to state some facts in relation to the brim of the pelvis, and the abdomen.

The anatomical peculiarities of the brim bearing on the question, viz., the promontory of the sacrum posteriorly, the length of the antero-posterior diameter of the superior strait, as compared with its other diameters, and with the occipito-frontal diameter of the fœtal head, are generally and sufficiently distinctly set forth in obstetrical works, as determining the position in which the head in *labour* is compelled; but I submit that these peculiarities have little less influence during the latter periods of gestation; and as by this arrangement the head is better accommodated during labour, so it is better accommodated during the last weeks of gestation. It is not to be understood, then,

that we very frequently have the 3d position, vertex presentation, and the antero-posterior diameter of the fœtal head, being so much greater than the antero-posterior diameter of the superior strait, the position is necessarily changed to the 1st, or any other; but, on the contrary, before, and for weeks before the labour begins, the relation of the head to the brim is such that the position is, must, and will be the 1st. I do not think, however, there would be any great difference in the accommodation given to the head, in the 1st, 2d, 4th, or 5th positions, but the peculiarities of the pelvis would only affect these as compared with the 3d and 6th. It is, therefore, not to the peculiarities of the pelvis that I would attribute the greater frequency of the 1st position, as compared with the 2d, 4th, and 5th, but to the abdomen.

The anatomical facts in relation to the abdomen, to which attention is called, are—1st. That its posterior wall is composed of materials which cannot be made to give way to an enlarging uterus, but will compel said uterus to seek room in some other direction: Farther, that this wall, so far from presenting a concavity to accommodate a convexity, such as is offered in the back of a fœtus when folded up in utero, rather presents a convexity, to turn off the back of said fœtus.

2d. That the anterior and lateral walls are just the reverse, in the above respects, of the posterior wall: they are yielding; and the muscles, which contribute so much to make up these walls, being attached to the bony frame above, below, and laterally, yield in just such a way as to form a concavity to receive the convexity of the fœtus's back.

3d. The right hypochondriac region is occupied by the largest solid viscus in the body, viz., the liver; and in the latter stages of pregnancy, when the uterus would intrude upon its location, the attempt is so far resisted that the right side of said uterus is compressed—its diameter here diminished, and the body of the contained fœtus is thus naturally thrown around to the left side: so that, when a fœtus lies with the head bearing the relation to the brim in the first position, its body is in the abdomen corresponding to the same position.

The 1st position, then, is not only the most easy and natural in parturition, but also in the latter stages of gestation.

A probability in favor of this view of the subject, is derived from a fact already mentioned, viz., premature labours are less apt to be of this position, than labours at full term. The probability is inferred in this way. In the latter stages of pregnancy, the abdomen is more nearly filled than in the first stages, and the peculiarities which have been pointed out are more fully developed.

Again: turn the fœtus round, so that its back will nearly or quite correspond with the back of the mother, (and this you will do if you turn the face to the pubes or acetabulum,) and what is the inevitable tendency of the contractions of the abdominal muscles, so common in pregnant women? Certainly, in the event they fail to throw the fœtus round, they are to produce extension, instead of flexion. If they produce extension, the effect must be unpleasant to the mother, and perhaps to the fœtus also; and this, necessarily, if the fœtus occupies less room in flexion than extension; and if the former remark, 'that the fœtus is compelled to fold itself up in utero in order to find accommodation ordinarily,' be true. To be more explicit: When a fœtus lies with its back corresponding to the maternal back, the abdominal muscles expend their force upon its cranial and caudal extremities; and the maternal back successfully resisting these contractions, the fœtus is either thrown round or extended. If extended, uneasiness is produced at least on the part of the mother; this uneasiness farther induces contractions, which, ordinarily, compel the fœtus to pass round, and accommodate itself to the cavity containing it. The exceptions are numerous, it is true—about as many as present the head other than in the 1st position; and though to state the causes of these exceptions might throw more light on the subject, yet, we will only say that they are mainly to be found in the absence of a healthful and favorable relation in size of fœtus and cavity.

The second great cause determining the position of a fœtus in utero, both in the last stages of gestation and in parturition, is to be found, I submit, in the force of gravity. About the period to which reference has been so often made, though the woman, to maintain the centre of gravity, may throw the shoulders and body back, (which last increases the convexity of the posterior wall already referred to,) yet the posterior wall of the

abdomen will not be carried so far back, as that the fœtus will occupy a vertical position—will be balanced on its head. So far from this, it will be removed several degrees from a perpendicular. For the reasons apparent, if not already given, this leaning will be anteriorly or laterally, and the evident tendency is to the first; but counteracting agencies, as I have tried to shew, and as experience, I think, shows, make it left-laterally, usually. Now, as by a well-known law of gravity, the heavier seeks the lowest point, and as the posterior side of the fœtal ovoid is the heavier side, so it should take the most dependent position.

The fœtus, then, lying in utero, in a position corresponding to the 1st position of Baudelocque, has its diameters to correspond more nearly with the diameters of said cavity; and the tendency to deviate from this position is, usually, prevented by the action of the abdominal muscles, aided by the force of gravity.

Since writing out these remarks originally, I have found the following, in the beautiful and able Treatise on Midwifery, by F. J. Moreau, in which I am not very sure that he did not intend to put this whole matter in a nut-shell. Treating of “attitude and position of the fœtus in utero,” page 95, he says—“Generally, this position is as follows: the head rests on the os uteri; the hips and feet are toward the fundus of the organ; the back is turned toward the anterior paries of the abdomen of the mother; and the belly toward the lumbar vertebræ of the latter.” Then, in the last paragraph on that page, he says, “this position may be explained by the laws of gravity, and in a purely mechanical manner. Thus, the back of the embryo, by virtue of its convexity and weight, should lodge in the most concave part of the uterus, which is the anterior surface; it can adapt itself more accurately to this surface, which coincides with the anterior soft wall of the abdomen, whilst the lumbar column and a portion of the viscera of the mother, which project posteriorly, accommodate themselves more easily to the unequal surface of the anterior region of the fœtus.”

So far as I am aware, nevertheless, these remarks attribute to the abdominal parietes an importance not, hitherto, fully recognized. Much that has been said may be ideal. I do not doubt, however, in the least, that the facts mentioned have their influ-

ence, and that influence is great. But without deciding on the value of these remarks, further than is indicated by writing them out, and forwarding them to you, they are placed at your disposal, with the assurance, that if in your estimation they will not be read with interest or profit, you will do me a favor to suppress them.

Although the practical bearing of the above theory has not been referred to, and though it is regarded as being great—since this article has been extended much beyond my design, I only desire to mention, in this connection, the question of position or decubitus in parturition.

In the theory, is contained the best reason, in my judgment yet offered, for the *left side*. In comparison, the questions of convenience to the accoucheur, and modesty of the female, fall into insignificance. Still, they do not much affect an objection to that position, *in the last throes of labour*, which I have long had, and which is, there seems to be less force and agreement in the expulsive efforts in that position. But, without contradiction, I shall, unhesitatingly, hereafter give preference to the left side, at least until the head engages in the superior strait.

May 22d, 1854.

ARTICLE XXI.

Additional Remarks upon a case of Hepatic Abscess. By
H. R. CASEY, M.D., of Columbia county, Georgia.

Dear Doctor—I wrote you some time since, giving you an account of a Case of Hepatic Abscess that had occurred in my practice; which letter you placed before the medical public, through the columns of your valuable Journal. (Vide S. M. Journal, Sept. No. 1853.)

If the circumstances giving origin to that letter, were of sufficient importance to justify me in presenting them to your notice, I think I am authorized in giving you this letter, which may be taken as a sequel to the former.

In the conclusion of my former communication to you, I stated that the different orifices which gave vent to the supuration, were at the time of my writing, all cicatrized, and the woman in the enjoyment of fine health.

For some months thereafter I had frequent opportunities of meeting with her, and the facial expression, the lively air, the embonpoint, in fact, every appearance was the heraldry of health. She remarked to me, that she felt better and stronger than she had done for years.

Some short time subsequent to this, she became enceinte, a *situation* considered *most interesting* and *desirable* by "ladies who love their lords."

But the consummation of her hopes was not to be realized.

About the third month of Utero-gestation, she was taken down with pains and a flowing, and I was summoned to see her. I immediately put into requisition the means usually resorted to on such occasions to prevent the threatened catastrophe.

There being a decided proclivity in the uterus to throw off its contents about this period of its *gravity*, (she having aborted two or three times,) I did not hope, nor did I expect to succeed, particularly as the uterine contractions were very forcible, and the hemorrhage great. Things continuing thus and rather aggravating for two or three days, and being satisfied that the maternal and foetal connection was severed, I administered the vinum ergot which soon had its effect in the expulsion of a dead foetus.

She was put to bed, and had no untoward symptoms. She had a good "getting up," was doing well in every respect and began in three weeks from the accident to attend to her domestic duties.

Her circumstances in life being such as disqualified her from having menials to go at her bidding, and come at her beck, she unfortunately sought the wash tub too early, and at night after a hard days washing she was taken down, and the following morning I was sent for.

I found her quite ill, with great febrile excitement, pulse 130, skin hot and dry, complained of no particular pain, but a general malaise. I gave her forthwith 10 gtt. verat. viride, and directed its repetition in 7 drop doses until the pulse was brought down to 90, when I directed 15 grs. sulph. quinine to be given. At bed time to take 12 grs. blue mass, followed in the morning with sulph. magnesia, and after its operation, she was again to resort to the great febrifuge.

Called to see her on the third day, found her somewhat improved, but still with considerable fever, pulse 98, strong, tongue coated, with pain in right side. Fearing the suppurative termination, and dreading to go through the scenes that were enacted on a former occasion, I boldly set to work by the aid of all those means that would be conducive to that end. To ward off the dire tendency, I put her upon mercurial alteratives, had croton oil freely rubbed over the right hypochondrium, and restricted her as to dietetics. I continued this treatment for several days, using saline purgation on alternate days, but found at length I would have to give up the contest. The inflammation would not yield to my treatment, and suppuration became evident. Again the hectic, like the bright red coral of the ocean, began to play upon the cheek.

A change in her symptoms called for a change in my Therapeia. The depressing treatment was laid aside, and an invigorating one, with a generous diet, substituted.

Directing my efforts to the pointing of the abscess, *externally*, I was in a few days called on to use my lancet. Finding a fluctuating tumour opposite the side of the affected viscus, I punctured the most prominent point, and gave vent at once to about two gills of matter. The puncture was directed to be kept open, and warm althea poultices applied.

From this time to the closure of the wound *in health*, I suppose some half a pint more of matter escaped.

She recovered from this attack sooner and with less constitutional disturbance than in her former trial, owing in a great measure to the fact that in the present instance, the abscess was smaller, judging from the relative amount of matter excreted.

There was nothing peculiar in the treatment or subsequent management of the case. The obvious indications being to build up the system, such remedies were ordered the known tendency of which was to increase the stamina.

She was put upon mineral tonics, and iodine and an appropriate dietetic treatment instituted.

I am happy to have it in my power to say that my patient is again in the enjoyment of fine health.

In the course of my remarks in the former letter to you, I

stated that a suppurative termination of this Phlegmasia in this country was of rare occurrence, and that its existence was even denied by some.

This *unfortunate* yet *fortunate* lady stands to-day a *living witness* of the susceptibility of the liver to suppuration, and to *re-suppuration*.

I will make one other remark in connection with this case.

This lady, previous to her first attack of hepatic abscess, had been for several years a victim to Hæmorrhoids, from which at times she suffered greatly. During the treatment of her case she found that her piles had disappeared and from that time she has never felt them.

Now, in her case, in all probability, the piles were caused by her liver disease checking the return of the blood of the hæmorrhoidal veins. Her liver being torpid, congested and enlarged, acted as a mechanical impediment to the passage of the blood of the portal circulation; and hence the induction of piles. This, however, is but a speculation, which I think, however, warranted from the facts of the case.

May 25th, 1854.

ARTICLE XXII.

A Case of Ulceration of the Cervix and Os Uteri, successfully treated. By A. F. ATTAWAY, M. D., of Madison county, Georgia.

The following is a case brought to me on the 2d day of May last, supposed by the friends of the patient to be one of prolapsus uteri, for which they wished me to operate. By interrogating the patient a few minutes, I was convinced of their delusion, and induced to believe that I had a case of ulceration to contend with.

The woman was thirty years old; had given birth to three children, the youngest of which was six years of age. Six weeks after the birth of this child she got her feet wet, in consequence of which, she thinks, she had a sudden and violent attack of sickness. The best medical aid was procured that could be had, and, after an illness of several weeks, her health

was only partially restored. Since then, she has been subject, more or less, all the time, to pain in the loins; a sense of heat and forcing in the pelvic region; general debility, and unnatural vaginal discharges. She had been under the care of various physicians for the last five years, without realizing any permanent benefit.

By the touch, *per vaginam*, I found the uterus considerably swollen, and slightly prolapsed; the cervix and os soft and patulous, presenting an irregular surface, in consequence of cicatrization, and very sensitive to pressure, the least of which caused lancinating pains in the pelvis, and more especially in the region of the ovaries. Upon introducing the speculum, an extensive ulceration of the cervix and os uteri was perceptible, and that part of the organ which was not covered with deep ulcers, (for there was more than one, varying in size from that of a pea, to a shilling, or larger,) was of a deep red or livid color, presenting such an aspect of malignancy, that I was disposed to doubt the efficacy of any treatment I might prescribe. I, however, treated the case as follows:

Patient confined to recumbency as much as possible, without too much inconvenience—the speculum introduced, and the organ well cleansed with a camel-hair brush, and a piece of fine sponge affixed to the end of a stick of whalebone, dipped in the suds of Castile soap—then, with the best quality of nitrate of silver, I cauterized the ulcerated surface thoroughly. This was done once every three days, for three weeks; after this, only once a week, for nine weeks—at the lapse of which there was no ulcer to be seen, and the organ looked of a natural and healthy color.

In addition to the above, I washed the vagina and cervix uteri, once a day, with cold water, impregnated with Castile soap, followed by a solution of the sulphate of zinc, 10 or 12 grs. to the ounce of water. Her diet was nutritious, and easy of digestion; her bowels were attended to; and occasionally chalybeates were used. Such was the treatment which resulted in a permanent cure. The woman is now in vigorous health. Nine months have elapsed without any symptoms of the disease returning.

ARTICLE XXIII.

The Leaves of the Magnolia Tripetala as a Dressing for Blisters. By JNO. STAINBACK WILSON, M. D., of Airmount, Alabama.

As this Journal is eminently practical, it is hoped that a brief notice of the remarkable species of *Magnolia* which heads this article, will not be unacceptable.

The *M. Tripetala* is known by the common names of "umbrella tree" and "wild cucumber," the latter being, we think, the most common in Alabama, where it grows abundantly; although it seems that this name is most generally applied to the *M. Acuminata*.

The species of *Magnolia* under consideration, is one of the most remarkable productions of the United States, and will not fail to attract the attention of the most unobservant, by the wonderful size of its leaves and the beauty of its flowers: "the former are eighteen or twenty inches long, by seven or eight in breadth," and even larger than this: while the latter are of corresponding magnitude, being "seven or eight inches in diameter." We are informed that "this species of the *Magnolia* extends from the northern parts of New York to the southern limits of the United States," but we have never seen it in any part of the State of Georgia. Still, as it is no doubt a common production of the rich lime lands of the South Western and Western states, its "medical properties and uses" should be known to the physicians of that region; and it should not suffer unmerited neglect like too many of our useful indigenous remedies. The *M. Tripetala* (the bark) is highly esteemed by the common people as a tonic, and some of them even consider it an infallible specific in dropsies; this of course cannot be conceded, but the estimation in which it is held is, at least, an evidence that it is not by any means destitute of medicinal virtues. And in addition to this, we have the higher evidence of our Dispensatory that it has been found useful in chronic rheumatism, and intermittent and remittent fevers. We have had no experience with it in the treatment of the above diseases; but we have used the leaves as a dressing for blistered surfaces with

satisfactory results, and the main object of this article is to commend this application to the attention of the profession.

We will simply, in conclusion, mention why we think this dressing should be considered worthy of notice: 1st. The leaves of the Magnolia are not officinal, and it may therefore, be presumed, that their uses are unknown. 2nd. We think that they are equally as good as the collard or cabbage leaves, so much used; while they are often more readily obtainable, much larger, and less offensive in smell.

Before using, we scald them, but think it possible that they would answer every purpose, if applied in the natural state.

Experiments with Phosphorus, and remarks upon its Dose and Action, when given in the form of Alcoholic Tincture or Solution. By WM. M. BOLING, M. D., of Montgomery, Alabama.

More especially since I have used in my practice the *Vera-trum Viride*, the discovery of an article equally certain, prompt, powerful and reliable in its action as a cardiac sedative, but without some objections that have seemed to me to pertain to the operation of this remedy, I have thought a great desideratum. By an article presented to the Alabama State Medical Association, at its meeting in Selma, in December, 1852, with impressions that I had previously received in regard to it, my attention was directed to the *Gelsemium Sempervirens*, or Yellow Jessamine. I entered upon my experiments with this article, somewhat sanguine of success, but disappointment was the result. After a number of experiments with it, in which certain effects said to result from its use, such as dimness of vision, trembling, &c., were produced in a marked degree, I could not discover that it at all reduced the frequency of the pulse. My experiments with it were upon healthy subjects.

In a well written and exceedingly plausible paper, which was published in the *New Orleans Medical and Surgical Journal* for January, 1854, on *Pneumonia*, by Doctor S. Ames, of Montgomery, *Phosphorus* is mentioned as a remedy of great value in this disease, and its curative influence, if I mistake not, ascribed to a cardiac sedative operation. I have been induced to make some experiments also with this article; the results of which I will give.

Two preparations of the article are mentioned by Doctor Ames, to wit: a saturated Tincture in Anhydrous Alcohol,

which he supposed to be equal in strength to the Ethereal Tincture, or to contain four grains to the ounce; and a diluted tincture, made by adding nine parts of alcohol to one part of the saturated tincture. As a dose of the saturated tincture, from half a drop to two drops are spoken of, but it is stated that the medicine "cannot be continued in the smallest quantity just mentioned for any great length of time, without inducing considerable disturbance of the stomach, as shown by nausea or vomiting, burning heat, and a feeling of oppression at the epigastrium." It is also remarked that "its effects are cumulative; that is to say, a dose which singly is not large enough to produce any sensible effect, may become very troublesome, or even dangerous, after several repetitions at intervals of three or four hours;" and that "this quality was developed in one instance by repeating it in a dose of two drops of the strong alcoholic solution three times at intervals of twenty-four hours." In regard to its sedative action, Dr. Ames remarks, that "its sedative or contra-stimulant, is its medicinal or therapeutic action," and in a note, makes the following statement: "Two young gentlemen, my personal as well as professional friends, have been recently engaged in some experiments to test the effects of phosphorus on persons in health; they themselves being the subjects of the experiments. These gentlemen (Doctor Pollard and Doctor Oliver) found that a single dose of two drops of the saturated alcoholic solution invariably reduced the force and frequency of the pulse. The changes in frequency ranged in the number of pulsations to the minute, between eight and twelve beats. A change was perceptible in about twenty minutes, which reached its maximum in from an hour to an hour and a half."

Doctor Ames, however, for reasons given in his paper, prefers the weaker solution, and his method of administration is to add, sixteen drops of it to four ounces of water, of which he gives a teaspoonful every "third or fourth hour—usually every fourth." As there are thirty-two teaspoonfuls in four fluid ounces, the quantity of the diluted tincture thus given at a dose, would be half a drop. This dose Doctor Ames prefers "after many trials with larger ones."

I have been thus particular in referring to the peculiar effects said by Doctor Ames to result from the use of these two preparations of phosphorus, but more especially to the dose and method of administration, that comparison may be conveniently instituted with the dose and manner of administration followed by myself, and any fault or deficiency in the latter, detected and pointed out. I feel inclined to pursue the subject further, if I have failed in any way to conduct my experiments satisfactorily.

The pulse—as most persons know, and as any one may satisfy himself of—will be found to vary in many persons, if not in every one, somewhat in frequency at different times in the twenty-four hours; and often, even when felt at short intervals, will be found so to vary from trivial or inappreciable causes. To prevent any fallacy from this circumstance, it will be noticed, that in my experiments on some days, the frequency of the pulse at different hours is given, though the phosphorus was omitted. A comparison may thus be made between the pulse on the days that the phosphorus was, and on the days that it was not, given.

My first subject was Sam, a healthy mulatto boy, seven years old. On the 25th of February, having kept him in the recumbent posture sometime, his pulse being 102, at 1 o'clock, P. M. I gave him seven drops of the saturated tincture. At 2 o'clock, P. M., pulse variable, from 90 to 108. 3 P. M. (subject asleep,) pulse 94. The dose of seven drops were repeated. 4 P. M., (subject asleep,) pulse 104.

Feb'y. 26th—1 o'clock, P. M., pulse 100; 1½ o'clock, pulse 114; 2 o'clock, pulse 100. No phosphorus was given to-day. The subsequent experiments with Sam were with the diluted tincture. The experiments already given were conducted with the subject in the recumbent posture. In the following, he was generally, when a dose was to be given or the pulse counted, called in from play.

March 10th—11 A. M., pulse 100; half a drop of the diluted tincture given. 12 M., pulse 103; half a drop given. 1 P. M. pulse 100 to 106; one drop given. 2 P. M., pulse 104; two drops given. 3 P. M., pulse 108; two drops given. 4½ P. M. pulse 92; two drops given. 6 P. M., pulse 88, and five minutes later, 96.

March 11th—Half after twelve, pulse 96. 1 P. M., pulse 104. 2 P. M., pulse 100. 3 P. M., pulse 101. 5 P. M., pulse 86. 6 P. M., pulse 92. No phosphorus was given to-day.

March 12th—10 A. M., pulse 98; 50 drops given. 11 A. M. pulse 102. 1 P. M., pulse 96; 100 drops given. 2 P. M., pulse 104. 5 P. M., pulse 100; 200 drops given. 5½ P. M., pulse 100; 200 drops given—making in all 550 drops in seven and a half hours. 6¼ P. M., pulse 107. 7½ P. M., pulse 94.

March 13th—8 A. M., pulse 92; 500 drops given. 9½ A. M., pulse 92.

March 17th—4 P. M., pulse 104; nine hundred and ten (910) drops, being exactly one ounce, given at a dose. Here a child seven years old took, at a single dose, one thousand eight hundred and twenty (1820) of Doctor Ames' doses for the adult. Half after four P. M., pulse 116. 5 P. M., pulse 120. 7 P. M., pulse 104, and the subject "feels very well."

The two hours immediately succeeding each of the last two doses, Sam spent riding in my buggy with me, and attended to my horse at the different stopping places; and though I noticed him carefully, no appreciable effect was manifested—the variation in the pulse alone excepted—otherwise than that he seemed a little merry, which was fairly, I think it will be admitted, attributable to the alcoholic part of the dose—about half an ounce in one instance, and an ounce in the other. It would scarcely seem necessary, while the large quantity of alcohol would render it improper, to repeat, or to carry the — joke any further with Sam.

My second subject was a negro man, about 25 years old, under treatment by means of the bandage and the recumbent posture, for a small ulcer on the foot. Otherwise, he was healthy. He lay in my office during the experiments, which *were all conducted with the saturated tincture.*

Feb. 27th—1 P. M., pulse 78; ten drops given. 4 P. M., pulse 72.

Feb. 28th—12 M., pulse 78; ten drops given. 1 P. M., pulse 80. 3 P. M., pulse 72. 4 P. M., pulse 78.

March 1st—11 A. M., pulse 74. 2 P. M., pulse 74. 3 P. M., pulse 68. 4 P. M., pulse 80. No phosphorus was given to-day.

March 2d—12 M., pulse 72; 20 drops given. 1½ P. M., pulse 71. 2 P. M., pulse 67.

March 3d—12 M., pulse 74; 25 drops given. 2 P. M., pulse 74; repeat the dose. 3 P. M., pulse 67. 3½ P. M., pulse 72.

March 4th—11 A. M., pulse 80. 12½, pulse 72. 3 P. M., pulse 68. No phosphorus was given to-day.

March 5th—12 M., pulse 74; 40 drops given. 1 P. M., pulse 74. 3 P. M., pulse 66.

March 6th—9 A. M., pulse 70; 60 drops given. 10 A. M., pulse 71. 1 P. M., pulse 74; 70 drops given. 2 P. M., pulse 72. 3 P. M., pulse 80. 4 P. M., pulse 80.

March 7th—12 M., pulse 78. 12½ pulse 64; 80 drops given. 2½ P. M., pulse 76.

March 8th—Half after twelve o'clock, pulse 74; 100 drops given. 1½ P. M., pulse 76. 2½ P. M., pulse 74. 3 P. M., pulse 74; 10 drops given. 4½ P. M., pulse 84; 21 drops given. 6¼ P. M., pulse 84.

March 9th—8 A. M., pulse 74; 2 drops given. 9 A. M., pulse 74; 30 drops given. 10 A. M., pulse 76; 40 drops given. 10½ A. M., pulse 76. 2 P. M., pulse 70. 3 P. M., pulse 78; 50 drops given. 3½ P. M., pulse 75; 50 drops given. 4 P. M., pulse 84. 5½ P. M., pulse 84; 100 drops given—making in all 272

drops of the saturated tincture administered during the day. 6½ P. M., pulse 82.

March 10th—7½ A. M., pulse 76. 8½ A. M., pulse 70. 10 A. M., pulse 80. 11 A. M., pulse 80. 12 M., pulse 82. 1½ P. M., pulse 76. 2 P. M., pulse 68. 3 P. M., pulse 74. 4½ P. M., pulse 80. 6 P. M., pulse 82. No phosphorus was administered to-day.

March 11th—No phosphorus was given, but the pulse being counted at intervals, was found to vary about as it did yesterday.

March 12th—10 A. M., pulse 76; 100 drops given. 11 A. M., pulse 82. 1 P. M., pulse 74. 2 P. M., pulse 82.

March 13th—8 A. M., pulse 72; 2 drops given. 9½ A. M., pulse 80. 10½ A. M., pulse 84; 2 drops given. 1½ P. M., pulse 78; 2 drops given. 2½ P. M., pulse 80; 2 drops given. 3½ P. M., pulse 78; 2 drops given. 4½ P. M., pulse 80.

March 14th—9 A. M., pulse 74; 150 drops given. 9½ A. M. pulse 74. 12½ pulse 84. 1½ P. M., pulse 80.

March 15th—9 A. M., pulse 72; 200 drops of the saturated tincture given. 10 A. M., pulse 72. 11 A. M., pulse 74. The subject was questioned and examined particularly. There was no nausea or vomiting; no burning sensation, or feeling of oppression in the stomach or epigastric region; in fact, he says he feels "very well." 1 P. M., pulse 76. A short time before he took the two hundred drops he ate a hearty breakfast, and at 2 P. M., with decided relish, a substantial dinner of bacon, cabbage, potatoes and corn bread. 4 P. M., pulse 80.

How much further the dose might be augmented with safety and without *appreciable effect*, I am at present unprepared to say; but reasons I think will appear as we proceed, that will render it not very improbable that the quantity of alcohol rather than any suppositious quantity of phosphorus, the preparations, as prescribed and given may contain, should form the only necessary limitation of the dose. To be ready for the press, I must here close my experiments so far as they are to be used in the present paper, though I shall probably continue them hereafter.

In my experiments, two methods of administration were principally pursued. In one, the tincture was dropped into a glass with water and given to the subject, sometimes before the entire disengagement of the whitish vapor that rises as the solution is mixed with water; and often a part of the vapor would escape with the first expiration after the dose was swallowed. In the other method, the solution was dropped into a vial with water; the vial was then corked and shaken, and the dose poured into a glass when given. These are the two plans

pursued it would seem by those who have used the article here as a curative agent in pneumonia. The latter seems to be the one adopted in the prescription given by Dr. Ames in his paper. The preparation that I at first used in my experiments I obtained from the Apothecary from whom I am in the habit principally of procuring medicines for my own use, and who prepared it at my request; but though I had no reason to suppose that the article thus procured was not of good quality, I subsequently supplied myself with both the diluted and saturated tinctures from the Apothecary who prepared the tinctures used by Doctor Ames.

As to the effect of the article upon the pulse, others may judge from the experiments recorded as well as myself. To me as a sedative it appeared to be entirely null; and this I apprehend will be the ultimate verdict of the profession. From my previous reading I had been led to expect a stimulant action from the larger doses, but no appreciable effect of the kind was observed that was not fairly attributable to another and more obvious cause than the phosphorus, to wit, the alcohol. This I think, as the subject is further developed, will not seem at all strange. In not one single respect was any effect that I could discover produced by the phosphorus. In no instance was there either disturbance of the stomach, nausea, vomiting, a burning sensation or a feeling of oppression at the epigastrium, though from the quantity of alcohol alone in the last two doses taken by Sam, something of the kind might not unreasonably have been expected. In no instance was there any alteration in the appearance of the tongue, diminution of appetite, or appreciable alteration or disturbance of the system in any way. My subjects ate with a good appetite, drank, slept, and in every respect deported themselves—while all their functions apparently were performed—as if nothing had been given; a temporary alcoholic excitement in the case of Sam after the last two doses alone excepted. When my subjects were asked how they felt after taking a dose, large or small, the answer generally given was, “very well,” or “first rate.”

It is stated in effect by Doctor Ames, that when the dose of phosphorus is enlarged beyond a certain point, the sedative influence is counteracted or prevented by a stimulant action, the result of the “local inflammation it excites” in the stomach and bowels. Now, as nothing of this preventive or counteracting character occurred in my cases—the sedative action of the article therefore not being in the slightest degree interfered with, seeing that in the experiments mentioned by Dr. Ames the pulse was *invariably reduced in frequency* from eight to twelve beats in the minute in the course of from an hour to an

hour and a half by a *single dose of two drops* of the saturated tincture—to what an extreme state of sedation should my subject have been depressed who took two hundred (200) drops of the same at a single dose, and again one hundred drops at one dose, and two doses of fifty drops each, besides several smaller doses, making in the aggregate two hundred and seventy-two (272) drops, all in nine hours and a half; while the degree of inflammation of the stomach and bowels that should have occurred, but did not, is awful, even to think of.

Further, in regard to the stimulant action of these tinctures. It will be observed, that after the administration of several of the doses, a slight *increase* in the frequency of the pulse took place. Still, the variation does not seem greater, omitting the doses of the 13th and 17th of March taken by Sam (in which so obvious a cause for the excitement was present, as in one instance an ounce, and in the other about half an ounce of alcohol.) than on other occasions where the smaller doses were given, or when it was omitted entirely. If, however, it should be supposed by any that a stimulant action from phosphorus was manifested on the occasion referred to, the absence of all symptoms of the local inflammation of the stomach and bowels, to which Doctor Ames regards the stimulant action as secondary and consequential, would show that it could not in my experiments be fairly attributed to any such cause. It would seem not improbable then, admitting that any stimulant effect really was produced by the phosphorus, that the received explanation of authors of a diffusive operation may be the correct one. It will not be doubted, however, that phosphorus may be so administered as to produce a local irritant action upon the stomach, consequent upon which there would be a febrile reaction.

Besides the experiments given, I have also taken a good deal of the article; indeed, had taken it sometime before I commenced its administration to Sam. I took it at first for a while with the occasional omission of a dose on account of absence from my office on professional business; but in one instance I took for eight successive days as much as five drops of the saturated tincture three times a day without the omission of a single dose, and in no respect did I ever experience any appreciable effect from its use. Though in every instance I was careful to drop out the full number intended, of five drops, I did not regard it as a matter of any importance when a few drops, say a half a dozen or so, more than that number happened to escape, but took the dose as if but the intended number was contained in it.

In connection with this experimental practice upon myself,

I will again call attention to the views of Dr. Ames in regard to the effects of the tinctures of phosphorus and their dose. Thus he says, speaking of the saturated tincture, that it "cannot be continued in the smallest quantity just mentioned,"—half a drop—"for any great length of time, without inducing considerable disturbance of the stomach, shown by nausea or vomiting, burning heat, and a feeling of oppression at the epigastrium." Though he admits that in the quantity of two drops, "a single dose, or *perhaps a few* doses may be given with impunity," he would evidently regard any lengthened use of it in such a dose, as a very grave and serious matter, and tells us of one instance in which dangerous effects resulted from the administration of three doses of two drops each, at intervals of twenty four hours. It is most desirable that we should yet be able to discover and explain the cause of these discrepancies. While Dr. Ames tells us that doses of half a drop cannot be continued for any great length of time, without the most serious results, I have myself taken it in doses of five drops—being just ten times the quantity—a long time, and for eight days without omission of a single dose, without effect. While under his observation, from a cumulative action, dangerous effects resulted from three doses of two drops each, administered at intervals of twenty-four hours, being in all six drops taken in the course of three days, yet I have taken for eight successive days three doses of five drops each, or fifteen drops per day, without effect. Indeed, unless I should discover something in its action, which has never as yet been manifested in any of my experiments, from my own experience with the article, and with all the lights at present before me, I should not hesitate, were it not for the mere trouble of the thing, to continue it in the same manner for years.

In the healthy subject at least, any effect of the article resulting in nausea and vomiting, could be easily appreciated, and not readily mistaken; yet not only did the subjects of my experiments take it in doses as mentioned, so immeasurably greater than the doses with which such effects are said by Doctor Ames to have been produced by it, but they took it under circumstances that were well calculated to favor the production of such an operation. Thus, while they sometimes took it in the middle of the intervals between the meals, they also took it at times immediately before eating, and at others immediately after eating. On several occasions I myself having forgotten my dose, which I usually took just before eating, until I had partly finished my meal, have called for my vial, taken the dose, and proceeded with my meal without disrelish or any subsequent manifest effect.

A word or two of explanation in reference to the dose recommended by Doctor Ames, that I may not be charged with rashness or temerity on account of the doses given to my subjects, may not be out of place. It will be seen that these took at different times doses of various sizes, from the favorite one of Doctor Ames—half a drop of the diluted tincture—up to two hundred drops of the saturated tincture.

It is supposed by Doctor Ames that the saturated alcoholic tincture contains four grains to the ounce. The diluted tincture would in that case contain four grains to ten ounces, or there would be one grain in two and a half fluid ounces. Doctor Ames' dose then of half a drop, supposing the drop to be equal to the minim, would be the one-twenty-four-hundreth ($\frac{1}{2400}$) part of a grain, there being twelve hundred minims in two and a half fluid ounces. But the drop is *not* equal to the minim. While there are but sixty minims in the fluidrachm—Professor Wood tells us that it takes one hundred and thirty-eight drops of alcohol to make a fluidrachm—it would seem scarcely probable that the small quantity of phosphorus held in the diluted tincture would cause any material variation in the size of the drop. In sundry trials made by myself in which several vials were used, I found that the number of drops of the diluted tincture necessary to make a fluidrachm varied with the shape of the vial and the thickness of the lip, from 100 to 125. Let us take, however, the smallest number, though the drops in that case will be found above the average size. Of these there would be just two thousand in the two and a half ounces of the diluted tincture, and each drop therefore would contain the one-two-thousandth ($\frac{1}{2000}$) part of a grain, consequently the half drop dose would contain the one-four-thousandth ($\frac{1}{4000}$) part of a grain; or there are four thousand of Dr. Ames' doses in a single grain. The strength of the saturated tincture is ten times that of the diluted tincture, consequently my subject who swallowed two hundred drops of the former at a single dose, took what was equal to four thousand (4000) of Doctor Ames' doses of the diluted tincture, and this without any effect.

The above estimates are all based upon the supposition of the correctness of the assumption of Doctor Ames, that the saturated alcoholic tincture contains in solution 4 grs. of phosphorus to the ounce, as the etherial tincture it is said does. We are not told by Doctor Ames whether he has any authority for this opinion, nor does he speak of any experiments performed by himself to test the solubility of phosphorus in alcohol. It would appear to be then a mere supposition, that an ounce of the saturated tincture contains four grains. Without some experimental tests we cannot feel certain that it may not contain more, or

that it may not contain less, than the quantity mentioned. No author that I have consulted says anything as to the exact quantity of phosphorus that any given quantity of alcohol will dissolve. Many of our very highest authorities on the *Materia Medica* do not even speak of an alcoholic solution; and those who refer to it at all, at least all that I have consulted, speak of phosphorus as very insoluble in alcohol as compared with its solubility in ether.

In the absence then of any definite statements on the subject, I was led to institute myself a series of experiments with the view of ascertaining with greater certainty the solubility of phosphorus in alcohol. In a vial containing one ounce of anhydrous alcohol, I placed four grains of phosphorus, in another two grains, and in another one grain. At the end of fourteen days—the time usually considered necessary for the preparation of tinctures by maceration, the time directed by a majority of the pharmacopœias—of the four grains, about one-fourth or less was dissolved; of the two grains, about one-half or less, and of the single grain, there still remained a portion undissolved. On testing these several tinctures by dropping them in water, they all gave off the white vapors as freely as any of the tinctures supplied to me by the apothecaries. It is fair I think to say then, that the saturated alcoholic tincture, instead of containing in solution four grains to the ounce, contains in reality but about one grain to the ounce. It may possibly be a little more; it would seem as likely to be less. The favorite preparation then of Dr. Ames—the diluted tincture—would contain one grain to ten ounces. Allowing, as heretofore, one hundred drops to be equal to sixty minims, or a fluidrachm—and this is a low estimate—we have in the ten ounces eight thousand (8000) drops. Eight thousand drops then of the diluted tincture will contain one grain of phosphorus, and one drop will contain the one-eight-thousandth ($\frac{1}{8000}$) part of a grain. The favorite dose of this tincture with Dr. Ames is half a drop, and the quantity of phosphorus consequently contained in it is the one-sixteen-thousandth ($\frac{1}{16000}$) part of a grain.

But it is very probable, even, that not all, indeed that but a small proportion of the almost inconceivably minute quantity of phosphorus contained in the dose is received by the patient. In using the saturated tincture or solution at the moment of contact between the drop and the water, a quantity of vapor is given off in the form either of phosphorus as such set free, or as one of its acids formed in consequence of chemical decomposition and combination. Possibly this may be the cause of the apparent nullity of effect in my experiments; and if so

we are necessarily forced to the supposition of an equal nullity, from the same cause, in the hands of others, who use the alcoholic solution suspended in water; and this is the method pursued by Dr. Ames. Now it does not seem at all improbable, on the contrary extremely probable, that the action or chemical change alluded to, attended with a proportionate loss, also takes place when the diluted tincture is combined with the water, though the disengaged vapor, on account of the minute quantity of phosphorus contained, may not be appreciable to the sight. The alcoholic solution or tincture, it is more than probable then, is not the best preparation of phosphorus, by which to secure with any certainty, its full and peculiar operation, whatever this may be, upon the system. Lobstein, who seems to have made the subject of phosphorus something of a hobby, prefers its administration in the form of etherial tincture, and tells us that such a preparation "is not decomposed by cold water," as seems to be the case with the alcoholic tincture.

I have heard it remarked by individuals that certain physicians* (naming them) must be in the habit of using *very strong* medicine, for that when they dropped it in water "it fairly smoked." Had the dropping been conducted in the dark, the conflagration from which the smoke was given off, might also have been seen. It would not, therefore, however it is probable, have been believed, that the strength of the medicine was all smoke—vapor—but rather that "'twas spirit Pandemonium," at the very least.

Lobstein—who from the case to be referred to, there is grounds to suspect, must have been decidedly something of a Charlatan—once, from his own account, took advantage of one of the singularities of phosphorus, to operate to an extent beyond the influence of mere smoke, upon the imaginations of the persons surrounding a patient that he had been called to see. A woman fainted. He gave her a few drops of phosphoric ether. "In two minutes after," he tells us, "a flame was observed to proceed from her mouth, which caused all present to cry out with astonishment. I observed, humorously," he goes on, "that she had a devil in her. Nevertheless, I gave her a second dose, and after a short time she opened her eyes and exclaimed 'ah, I feel very well!' The bystanders were so much surprised that they really believed that the "devil had

* With *several* of the physicians of Montgomery, who are no doubt indebted principally to Doctor Ames for directing their attention to it, phosphorus, in the form spoken of in the text, has been for some three or four years past, quite a favorite remedy in pneumonia, and one to which a remarkable degree of success claimed, in the treatment of this disease, is, in a considerable degree, ascribed by them.

flown out of her mouth,"—exorcised, as a matter of course, by the medicine given.

I have the permission of my friend Doctor Baldwin to say, that he has performed a series of experiments somewhat similar to mine,—has even given larger doses—and with like success.

In conclusion, I would remark, that though prior to the experiments here recorded, I had taken and given, experimentally, a good deal of the alcoholic solutions of phosphorus, I have never, in any instance, given them in a case of acute or dangerous disease. It would seem to have been truly said, that "there are more false facts than false theories in medicine."

[*New Orleans Med. and Surg. Journal.*]

Observations on the Human Eye by means of the Speculum Oculi.

[The first and second numbers of the *Deutsche Klinik* (Berlin) for January, 1854, contain an able article by Dr. Oscar Sæmann, on the *Speculum Oculi* of Helmholtz, and its application to the diagnosis of diseases of the organ of vision. The first part of this paper is chiefly devoted to a description of the mechanism of the instrument, the manner of its application, &c. The second part is that which we present to the readers of the *Monthly*, under the above title. H. N. B.]

In order that we may be able to distinguish with our eye the pathological alterations existing in any organ, it is necessary that we should be familiar with the appearances which that organ presents in its normal condition. It becomes necessary, therefore, that I here give a brief sketch of what we perceive in the healthy eye by means of the *speculum oculi*.

If we give the reflector such a position that it sends the rays of the taper passing through the convex glass into the eye to be examined—by which the dark spot, which corresponds to that point of the speculum not covered with foil, must fall directly upon the pupil—and look through the transparent portion of the reflector, we see the pupil clearly illuminated. The degree of its lucidity is, under otherwise equal circumstances and with a sufficiently dilated pupil, different in different eyes, and depends upon the greater or less capacity of the background of the eye to transmit and reflect light. A part of the rays of light, for example, is reflected by the retina and its vessels; another part passes through these to the choroidea. Of this transmitted light, again, one portion is reflected by the vessels of the choroidea, whilst another is absorbed by the pigment of this membrane, and the remaining portion penetrates the more transparent parts of the same, to be at last reflected

by the sclerotica. The stronger the pigment of the choroidea is developed, the more the light is absorbed; the less it can penetrate, so much the more dimly will appear the illumination of the pupil: the less the pigment is developed, the more the light is reflected; so much the clearer will be the pupil. The color of the light presents all shades, from whitish-yellow to yellowish, from yellowish-red to the finest rose, which latter color I observed in an albino. Van Trigt directs attention to the fact, that the abundance of the choroid pigment is in direct ratio with that of other tissues, especially the hair; and that consequently in blonde individuals the pupil appears much clearer than in individuals with brown or dark hair. If we now apply to the instrument the concave lens corresponding to the state of refraction of both eyes, we perceive, in the back-ground of the eye, vessels of larger or smaller size, which sometimes run isolatedly, sometimes so that artery and vein lie together. The background of the eye itself appears in a reddish light, which passes to a dark brown when the pigment is very abundant, but shines of a clear rose color when the choroid pigment is less. The particular parts of the retina also do not appear equally colored; the color is clearest round about the *optic nerve*, and grows gradually darker towards each side. If we direct the eye somewhat inwards, it is not difficult, after some practice, to discover the *Papilla nervi optici*, which exhibits a truly splendid appearance. It presents itself generally as a circular, more rarely as an elliptical, clear white disk, which, shining like the full moon in a blood-red sky, is more or less netly bounded by the surrounding parts, and at its periphery is girdled by a dark, often not wholly closed ring of various breadth. At times, here and there, single dark spots may be distinguished upon the shining disk, caused by little inequalities of the *papilla*. Somewhat inward from its middle point issue the *Arteria* and *Vena centralis*, the first of which is marked by its clearer red color and smaller circumference, sometimes single, sometimes forming a coil. For the most part these vessels extend upwards and downwards over the papilla, and divide near its periphery into two or more branches; but they do not always take so regular a course, but wind about in all directions, sending out their twigs over this disk. The artery, as well as the principal trunk of the vein, exhibit at the summit of their curve a light streak, which proceeds from the reflected light, and is not observed in the neighboring venous branches, because their walls are too little arched, more level. The falciform line of shade lying inwards from the papilla, which Helmholtz has always, and Van Trigt never, seen, I have also at times, but not always, been able to discern.

If we cause the eye of the individual examined to look directly at the image of the taper present in the reflector, we have before us the point of direct vision, the *macula lutea*. Helmholtz says it rises less abruptly from the surrounding parts, has a darker gray-yellow color, and shows no vessels. According to our observations, however, it is distinguished in nothing from the rest of the background of the eye, neither by a different color or a greater want of vessels.

If we examine the normal eye with convex glasses, through which the eye of the observer is adapted also for the anterior parts of the same, *cornea, iris, lens, corpus vitreum*, we see the magnified pupil shine with uniform clearness.

After this short description of that which we perceive by means of our instrument in the normal eye, I proceed to the observations which we have made upon the diseased eye.

Diseases of the Lens.—The most frequent diseases of the lens are opacities, *cataractæ*. When the opacity is far advanced, and its color a clear gray, there is no difficulty in the diagnosis: but the cognizance of opacities in their first commencement is extremely difficult, and the difficulty is increased from the fact that in elderly persons generally the pupil does not appear of a pure black. But, by the aid of the speculum it is possible to detect even the slightest opacities of the lens and its capsule, since the latter are very accurately defined when the background of the eye is illuminated, and we examine through a convex lens of 3—6" focal distance.

We have observed commencing opacities of the lens, which were wholly inaccessible to observation according to the ordinary methods of examination, in 24 individuals—eight of whom had a perfectly normal vision, and were examined only *experimenti causâ*, the rest suffering from disturbed or extinguished vision, which had its origin, however, in other diseases of the eye.

The most frequent opacity was that of a nucleiform cataract (Kernstaar,) and was absent in only three of these 24 individuals. Upon application of a convex lens, No. 3, it was seen in all gradations of size, from the smallest point to a deep black disk of nearly 1" in diameter, and was always conformable, no single dark atoms being distinguished as composing the opacity. Its periphery was mostly circular, in two cases elliptic, with the greater diameter running obliquely; also dentate, stellate. It occurred in 20 cases bilaterally, and had but rarely reached the same stage of development in both eyes. This deeply dark disk was sometimes surrounded by gray, irregularly formed specks, which, in one young lady, represented a

second circular concentric disk in both eyes: in other cases by a large number of dark points of various size, but which never equalled the nucleiform cataract, and were sometimes very irregularly placed, sometimes appearing, more or less clearly, as a concentric layer, sometimes as a vincular, or as a stellar stratum. We saw these dark points, also, in those three individuals in whom the nucleiform cataract was wanting. In seven cases an opacity was seen at the outer border of the lens, which twice was encircled by a ring accurately defined and circular within, once by two concentric rings, separated from one another by a clear line, and consisting of thickly crowded points, while four times dentations were sent out towards the middle of the lens, by which the existing nucleiform cataract was rendered dentate or stellate.

The examination of more perfectly developed opacities of the lens, which may be already diagnosticated by the mere sight, shows that such cataracts always have a greater circumference than one would suppose from an exterior view. Here the speculum can accomplish something in the determination of the time at which the cataract will attain sufficient maturity for operation, since we have, in the visible progress of the opacity, a sure guide independent of the self-delusions of patients. In the examination of such strongly developed opacities of the lens, at times a deep black figure appears to us, which consists of three radii proceeding from the pole of the lens, growing smaller towards the equator; their direction corresponds exactly to the meridian lines, and there is no doubt that we have to do in such cases with the cleaving of these, often observed in cataractous lenses. Since the meridians of the anterior and posterior hemispheres of the lens have an opposite course, so we can easily determine from the course of these dark radii in which hemisphere the cleaving has taken place.

For the exact history of the development of cataracts, the speculum will be of the greatest use. Already it is proved with greater certainty that most opacities of the lens, taking their origin in the nucleus, extend in a centrifugal direction. This centrifugal extension is at times met by a second opacity, beginning at the border of the lens, and progressing in a centrifugal direction; but the latter is exceedingly rare. The opacities of the lens are composed of single dark atoms, which increase in number, become thickly crowded together, and at last conglomerate to a conformable mass. This conglomeration often proceeds with a certain regularity, and two special forms of it may be observed, namely, either these dark atoms unite to form concentric rings, or radiate lines. Only the opacity of

the nucleus of the lens has appeared to us, hitherto, always conformable; probably the cause of this lies in the denser stratification of the fibres which exist in the nucleus, and the want of abundant uniting tissue. If the speculum enables us on the one hand to recognize the least beginnings of the cataract formation, so also, on the other hand, it often teaches us that there is no opacity of the lens existing, when, from the mere sight, we should conclude that such was the fact. The pupil, especially in older persons, is not a pure black; it appears gray-yellow, whitish-yellow. Several cases have occurred to me, in which physicians had declared to eye-patients that they had a cataract, and might be eventually cured by operation, when the speculum proved that there was absolutely no opacity of the lens existing, and that the disturbance of vision was dependant upon a very different lesion of the eye.

Diseases of the Corpus Vitreum.—The circumstance that the vitreous body is almost completely withdrawn from observation, without illumination of the background of the eye, had made the diagnosis of its diseased conditions impossible. The disturbances of vision dependant upon this body, on account of the want of all externally perceptible alterations, were referred to lesions of the retina, and placed in the Augean stable of amblyopia and amaurosis. The speculum now teaches us, that diseases of the vitreous body, especially obscurities of the same, occur no more rarely than in the lens. These obscurities are of a twofold character:—either the vitreous body loses its natural transparency, the capacity to transmit rays of light to the retina, in which case, by the application of a convex lens, No. 6, the background of the eye appears wholly or in a greater part very dimly illuminated, and the retina-objects to be found behind the obscured spots, as well as the vessels and papilla of the optic nerve, are either not at all or only very indeterminately made visible by the concave lens; or black corpuscles are found floating in this body.

The first, from the analogy of opacities of the lens, we must consider as true obscurations of the vitreous body; they appear to us like cloudy opacities, which have a diffused extent, and almost always involved the greater part of the vitreous body. In sixteen individuals, six of whom were completely blind, and the rest all suffering from important disturbances of vision, we diagnosticated this diffuse obscuration, since the retina-objects could not be perceived by any concave lens, and the background of the eye appeared dim, as if washed away. A confounding with opacities of the lens could not occur here, since cataracts, which so materially obstruct the vision, could scarcely

escape an exterior view, to say nothing of the examination by the speculum. Besides, in five cases there were simultaneously slight opacities of the lens, which, however, appeared as small points, and could by no means explain the above symptoms. The conclusion may be drawn, that obscurations of the vitreous body of relatively slight intensity produce serious injury to vision, whilst cataractous lenses, which show exteriorly a tolerably intensive gray color, often allow the patient the reading of coarser prints.

Still more frequently than these obscurations, we observe those dark floating corpuscles in the vitreous body, which are set in lively motion by the slightest oscillations of the globe of the eye, and cross before the clear, shining pupil in the most different directions. These corpuscles present the most manifold forms; sometimes they resemble small coiled serpents, sometimes polyhedric cells, sometimes long, irregularly formed coagula, sometimes they appear as innumerable floating points. We observed, also, the most various forms in the same eye, and, indeed, sometimes in such great number, that the vitreous body, after a movement of the globe, appeared like dirty swamp water. When the globe returned to rest, these corpuscles sank to the bottom from the force of gravitation. We made this observation upon 26 individuals; four of them had normal sight; the most, however, complained to us of their own accord that they saw dark bodies floating in the air, and the description which they gave of their form frequently agreed very exactly with that observed through the speculum. They were often very short-sighted, so that they required acute concave spectacles. The vessels of the retina and choroidea were mostly clearly visible, nevertheless, we were obliged to use strong concave glasses, which corresponded well with the nearness of vision.

Concerning the nature of these corpuscles, nothing definite can be said; pathological anatomy and microscopy must furnish an explanation of them. We have not, hitherto, detected in them a spontaneous motion, so that we cannot at least consider them *living* entozoa. They may, indeed, often be blood or exudation coagula; and the circumstance that in two cases we found a tolerably extensive extravasation of blood upon the retina, favors this view in some measure. From their exterior form, we might often also be led to consider them as cells; but it would be remarkable that such cells should remain so many months in the same stage of development. Perhaps they are many times residua of the lamellæ of the vitreous body, which, according to Bowman, exist in early life, and later are broken up.

The frequent, manifestly swift movement of these corpuscles in the substance of the vitreous body, which, according to K  lliker's latest investigations, consists, in adults, of a more or less consistent mucus, permits us, nevertheless, to decide upon the fluidification of this body with some certainty, which accords also with the short-sightedness of such patients so frequently observed by us. Fluidification of the vitreous body makes its coefficients of refraction smaller; but this is not sufficient to explain the frequent high degree of nearness of vision, if we do not admit that through this means the diameters of incurvation of the refracting media are altered. In one man, who complained that upon motion of the eye he saw small, clear, shining corpuscles floating about in the air, I observed in the vitreous body little glittering points, visible sometimes here, sometimes there, which disappeared upon rest of the globe. Could they have been crystals of cholesterine?

Diseases of the Retina and Choroidea.—The background of the eye appears to us, as we have already described above, as a field of vision shining with a reddish light, intercrossed by larger superficial vessels of the retina sending out single smaller branches, and by a deeper lying convolute of smaller vessels of the choroidea, upon which the *Papilla nervi optici* is accurately delineated through its intense brightness and the central vessels so clearly visible upon it. The truly surprising clearness with which all this is seen, did not allow Helmholtz to doubt that vascular distentions, varicosities, exudations before the retina, in its substance, and between the retina and choroidea, would be easily recognized. The observations hitherto made public have dispelled every doubt; and we also have not rarely observed pathological processes of the retina and choroidea. If we have not been able hitherto to recognize all visible abnormalities in their true essence, if we even overlook much which is abnormal, nevertheless, we can already assert that a large number of amauroses, which have heretofore been considered as neuroses, depend upon visible textural alterations of the retina and choroidea.

Most frequently we have observed distention of the vessels of the retina, by which their main trunks appeared enlarged, sent out many branchlets not formerly visible, and the whole background of the eye appeared of an unusually intense red color. It is true, that the size of the vessels, the number of their branchlets, the color of the background, are very different in different men, and, therefore, error is very easy; but the correctness of the diagnosis is favored on the one hand by the subjective symptoms, the pain in the eye and frontal region,

the feeling of unusual fulness in the eye ; on the other hand, by the frequent favorable result of treatment by the abstraction of blood.

The true inflammation of the retina with exudation seems also not to be rare. The spots covered with exudation appear, sometimes, whitish, reflecting the light strongly ; sometimes reddish ; sometimes they have a more greenish tint, and when of greater extent, are surrounded by an irregular dark border ; sometimes, especially upon the *papilla*, they appear as dark specks. The exudation-mass, for the most part, encloses the vessels of the retina in such a manner that they become completely invisible, or at least appear only very dimly as white-red, not well defined marks. Only twice have I seen tolerably clearly the vessels of the retina running over the exudation-mass. In one case, already alluded to above, in which the vessels of the retina were surrounded by a reddish exudation, we observed simultaneously in the vitreous body those coagula-like corpuscles, which probably had become loosened from the floor of the retina, and floated free in the vitreous body.

Injuries of the retina and its vessels from external violence very rarely occur, and are then mostly connected with such important lesions of the whole bulb, that examination with the speculum can furnish no results ; it may also happen that a cataract needle in unskillful hands, or the lens dislocated by it, injure the retina. We have not observed cases of this kind. Van Trigt has wounded the internal eye of cats, dogs, and other canines, with needles, and in this manner made highly interesting observations upon the results of these injuries and the cicatrization of the wounds. On the other hand, we have observed a case of spontaneous rupture of the central vessel, which I may be allowed to report in detail.

A man, 55 years of age, plethoric, was suddenly seized with giddiness, and sank into unconsciousness. As he aroused from this condition after an hour, he was blind in his right eye, which before was perfectly normal. The physician called first, made a venesection, and otherwise conducted the treatment *lege artis*. Upon the fifth day after this mishap, he came to my office to consult me on account of his eye. The pupil of the right eye was more strongly dilated than that of the normal left eye ; both had a yellowish grey mucus, otherwise nothing abnormal exteriorly. The examination with the speculum gave the following result :—the *papilla nervi optici* was accurately bounded on the outer side, nevertheless even here was more dimly illuminated than usual ; at the inner and inferior side it was covered with a red blood-coagulum. From the upper border descended a vessel, which, irregularly den-

tated, terminated free; all the other vessels of the *papilla* were covered with the coagulum. Otherwise all is normal. There could be no doubt that here a laceration of the central vessel had taken place at the point where it issues from the *porus nervi optici*. Ten days later, the coagulum, now of a less dark red, was still visible only at the inner border; all the rest of the *papilla* was of a greenish color, with occasional clear spots interspersed; out of its midst was now seen passing downwards a rose-colored, not well defined line, which glimmered but dimly, and at its superior border vessels were distinguished which represented two arches. In the vitreous body floated single dark specks. The power of vision continued totally extinguished.

Morbid dilatation of the vascular walls we have never observed except in veins, which then appeared like dark, undulatory or spiral cords running over the field of vision. We never found them upon the *papilla*.

In a young man, who saw objects perfectly clearly only in a bright sunlight, but recognized them very imperfectly with a cloudy heaven, at evening, and by lamplight, we found the retina covered round about the *papilla*, here and there, with black specks; the *papilla* itself likewise contained several dark specks, but appearing less black, and less accurately circumscribed. Otherwise nothing abnormal. The supposition that here a pigment-transudation had taken place, sufficiently explains the perfectly normal perceptibility of the patient existing only in an intense light.

In conclusion, I will make mention of one other case, in which the speculum showed us, with tolerable certainty, that a lesion of the optic nerve itself was the cause of the blindness.

F. S., 11 years of age, with brown hair, brown-yellow iris, and very dilated pupils, was born amaurotic in the left eye; the right eye normal. The left ocular globe is a little smaller than the right, and sits deeper in the orbit. The *papilla nervi optici* appears as an unusually small elliptic disk whose lesser horizontal diameter is about half as large as the great perpendicular diameter; the *arteria* and *vena centralis* give off as usual two branches, but very fine, and besides the branchlet passing inwards, a second is also here visible running outwards; the *macula lutea* and the rest of the background of the eye present nothing abnormal. By means of a concave lens, No. 3, we discovered a central punctiform opacity of the lens. The right *papilla* is circular and quite large. While here, on the one hand, the circumstance that the amaurosis of the left eye was congenital, and on the other the obstructed development of the bulb warranted us in concluding upon an analogous con-

dition of the optic nerve, so also the examination with the speculum confirmed this diagnosis.

Sanguinous distention of the choroidal vessels is a very frequent phenomenon, which is characterized by abnormal size and intensive dark color of the choroidal veins. We have also observed, in many cases, genuine choroiditis with secretion of the exudation-mass. When the exudation is deposited in small circumscribed spots, the background of the eye appears uneven, and reflects the light from those spots stronger than from others; if the exudation has a greater extent, the retina becomes mostly separated, as it were, at the point of entrance of the optic nerve, and projects like a large eminence, whilst it crowds the *corpus vitreum* out of its position; such an eye has then lost the normal relation of internal parts, and the vessels coursing upon the hill-like tumor may be seen by mere illumination from the mirror without the application of a concave lens. Since such extensive exudations are mostly serous, of a fluid nature, so the retina, together with the vessels, may be seen floating after a movement of the globe. Ruptures of the retina from exudations crowding upon it from behind, in consequence of which it floats about freely in the exudation and disorganized vitreous body, we have not observed. In one case of choroiditis, which had had its seat more in the region of the *ova serrata*, we found the following. If we looked through a convex glass, No. 6, in the direction of the axis of the eye, the pupil being nearly normally illuminated, a dark body appeared at the lower border of the papilla, which was bounded above by three convexities, and floated hither and thither upon motion of the bulb, without leaving the border of the iris; simultaneously there appeared several other dark dentations, also black coagula-like corpuscles floating free. If we looked inward, the eye being directed inferiorly, we saw behind this dark body a yellowish green exudation-mass projecting inwards deep into the eye, which formed several strata lying behind one another, representing mountains as viewed from a distance. Through a concave lens we beheld, in the very depth of the eye, other well defined black specks; but the vessels were seen only very imperfectly with the eye directed strongly upwards. The exudation, in this case, penetrated the vitreous body.

If we now review the truly surprising results which the *speculum oculi* has furnished us in so short a time, we can not only concur in the expectation cherished by the highly esteemed inventor, that all the alterations of the transparent media, the retina, and choroidea, found in the corpse, will also be recognised in the living eye; but also assert, with safety, that it will be possible for us now to pursue with exactitude the progressive

development of the pathological processes of these structures, as well as their recession, whether effected by nature or not.

The advantages which will be derived by the practising physician, irrespective of the cure of these diseases, we have not hitherto considered; but one thing is certain, that an exact knowledge of the diseased objects must be the basis of a rational therapia: without this knowledge we grope in the dark. We shall not be able to cure all diseases, even in this manner; but the physician gains a great advantage thereby, when, from his knowledge of their incurability, he holds himself aloof from fruitless, perhaps injurious, attempts to cure.—[*Amer. Med. Monthly*.

On the Medical Treatment of Cataract. By Dr. GARCIA LOPEZ.

The majority of surgeons consider the cure of cataract without an operation a chimera. And yet it is impossible to deny that cataract is sometimes spontaneously cured. Is it, then, impossible that therapeutics may some day realize what nature occasionally accomplishes by herself? This question is often asked by unprofessional persons. Medical men have uniformly denied the possibility of the cure of complete lenticular cataract by medical treatment, while impudent and shameless charlatans have industriously propagated the opposite opinion among all classes of society. In the clinical reports of Dr. Beauvais* are recorded five *homœopathic* cures of cataract, one of which, treated by Dr. Caspari, was evidently a case of corneal opacity depending on trichiasis. The offending cilia were removed *surgically*, the patient took one drop of *cannabis* daily, and recovered entirely.

In the work of Taignot the reader will find an account of the experiments of Professor Pugliatti, of Messina, on the curability of capsular or capsulo-lenticular cataracts without an operation. This surgeon supposes that a strong solution of ammonia, applied at the internal orbital angle, penetrates the tissues of the eye, and exerts a curative effect upon the opaque crystalline system. He combines with this treatment the administration of five grains of iodide of potassium daily. He reports several cases which were benefitted, and one or two which were supposed to be cured by this means. In every case the treatment lasted many months. In the majority of cases no amelioration was perceived. In the Spanish Journal *El Porvenir Medico*, for December, 1853, we find four cases in support of the efficacy of the treatment of Pugliatti, reported by

* *Annales d'Oculistique*, tom. ii., p. 218.

the author, whose name we have placed at the head of this article, Dr. Garcia Lopez :

1. Aman of fifty years; nearly complete capsular cataract had existed for three months: vesication with ammonia, without any internal treatment, procured resolution in two months. 2. A man of thirty; soft, striated, lenticular cataract, two years old; capsule healthy. After six weeks of treatment the patient demanded an operation. Dr. Lopez found the lens diffuent and lactescent. 3. A woman of forty; hard, incomplete capsulo-lenticular cataract in both eyes, developed within a year. She could only distinguish very large objects. After seven months of treatment the patient recovered her vision, and could sew and follow her usual avocations; the opacity had disappeared except in a limited central point. 4. A woman of fifty; capsulo-lenticular cataract had existed for three years on the right side; a similar opacity was forming in the left eye, complicated with amblyopia. In six months, after the constant employment of ammoniacal vesication and iodide of potassium, a decided amelioration took place in the left eye; the right was unaffected.

Dr. Lopez reports these cases without any desire to attach undue weight to them, and can hardly be supposed to be prejudiced in behalf of a method which he did not originate.

There is another remedy to which much consequence is attached, to which Dr. Lopez does not allude, we refer to the iodine ointment allowed to dissolve on the conjunctiva. The editor of the *Paris Gazette hebdomadaire*, (Dec. 1853,) reports a case of double capsulo-lenticular cataract cured by this method.

In a succeeding article we have given a full account of the mode of treatment of cataract depending on capsulitis. The reports of the Medico-Chirurgical Society of Richmond, contained in the present number of the *Journal*, contain the histories of two cases of traumatic cataract, and one of supposed congenital cataract, in which the advantages of a free use of mercury in opacities of the crystalline system connected with inflammatory action are strikingly exemplified.

In all such cases, and in immature cataracts, no harm can arise from instituting medical treatment during a period which would be otherwise lost in awaiting the opportune moment for an operation. It must be confessed, however, that Lebert's researches into the structure of cataract demonstrate that in the great majority of cases medical treatment must be unavailing. Rognetta was of the opinion that an absolute denial of the efficacy of remedies in cataract was unwise; we concur in this sentiment, and trust that farther researches will be made in this interesting and obscure subject.—[*Virginia Med. and Surg. Journal*.

On Insufficient Alimentation, and the Value of Phosphate of Lime in Nutrition.

In the *Bulletin de l'Académie Impériale de Médecine*, for January, 1854, we find a report by M. Bouchardat, on the researches of a young and learned chemist, M. Mouriès in regard to the effects of phosphate of lime in the nutrition of animals, and the influence which the judicious employment of this salt is capable of exercising upon the mortality of children in large cities.

It has been a comparatively short period since physiologists began to appreciate properly the importance of inorganic principles in the phenomena of life. The farther we penetrate into this complex problem, the greater is the importance attributed to bodies, the presence of which in the human organism was regarded as quite accidental.

Very dissimilar organic compounds may be substituted for each other in our diet without any disorder in the general harmony, but the inorganic principles can only be replaced by substances very closely analogous to them. Albumen, fibrin, and casein, and other more complex aliments, though differing in origin and composition, may fulfil the same physiological end, but it is different with inorganic principles. Lecanu has shown that iron is indispensable for the proper constitution of blood-globules; chloride of sodium is of primary importance also as a constituent of the liquor sanguinis, and it is only as an exception that we find, in certain grammivora, this salt partially replaced by the phosphate of soda or of potash. Liebig has shown that the chloride of potassium of the muscles cannot be replaced by chloride of sodium. Each inorganic constituent of the organism has, therefore, its definite and limited sphere of action, to which it is exclusively adapted.

Among the indispensable inorganic salts, the phosphate of lime holds an important rank. M. Mouriès has devoted himself to the elucidation of its peculiar action. He deduces from his experiments the following conclusions:

1. Phosphate of lime plays a more important part in nutrition than has heretofore been believed. Independently of its necessity as a constituent of bone, this salt maintains that irritability without which there is no assimilation, and consequently no nutrition. Its insufficiency, therefore, produces death with all the symptoms of inanition, while its insufficiency in a less degree, produces a series of lymphatic diseases.

2. The food consumed in cities is deficient in this respect. Nurses' milk has, consequently, the same defect. The infant as well as the fœtus suffers from the deprivation of this element

so indispensable to its development and life. Hence one of the causes of the increase in the number of still-born children, and of the mortality of infancy.

3. The addition of this salt, in combination with animal matter, to alimentary substances, obviates one cause of disease and death.

The following are the principal facts on which M. Mouriès relies to establish these conclusions:

The blood of animals contains a constant proportion of earthy phosphates, which is independent of their ingesta. The pigeon ingests phosphate of lime slightly in excess, in the grain and calcareous gravels which it picks up; the horse swallows an excess, in its fodder; the dog procures a still greater excess from the bones on which he is fed; and yet the blood of the pigeon contains in 1000 grammes 1.20 of phosphate of lime; the horse 0.5; the dog 0.4. This result is not accidental; all birds whose blood has been analyzed have 1.5 to 1.2 of phosphate of lime, while the proportion in the blood of the carnivora and herbivora varies from 0.9 to 0.4. The proportion thus regulated by nature, is modified by age and sex. The bull, cow, and calf, have the same food, yet their blood contains respectively 0.5, 0.9, 0.8 of phosphate of lime.

The requisite proportion of alkaline phosphates varies, therefore, in different animals. A pigeon weighing one pound died at the end of ten months, during which period he was fed daily on one ounce of wheat, with common water for a drink, by which rather more than a grain of phosphate of lime was ingested daily: on the other hand, a woman weighing 100 pounds enjoyed perfect health upon a diet which furnished her daily with 90 grains of phosphate of lime. Thus health in the one case, and death in the other, with relatively equal quantities of this salt.

We shall recur to this example to show how complex are the conditions of these experiments, and what reserve is necessary in drawing conclusions from them.

M. Mouriès asserts, and the fact has already been noted by Chossat, that if the proportion of alkaline phosphates of the food is deficient, there ensues atony of the digestive organs, imperfect assimilation, and death. To prove that pigeons die from want of phosphate of lime, we may observe that their death is hastened if they are allowed only distilled water, while their lives may be preserved by adding earthy phosphates to their food.

M. Bouchardat observed that the grain on which MM. Mouriès and Chossat fed their pigeons contained only traces of common salt. The birds, therefore, should be expected to suf-

fer from the deprivation of this principle. M. Bouchardat accordingly made this experiment; he confined two pigeons, and fed them on dried grain. In two months the health of the female became impaired; she suffered from thirst and diarrhœa and laid no more eggs. She was set at liberty. She flew immediately to a window-sill impregnated with alkaline chlorides, and began to peck eagerly; there was a larger quantity of salts on the interior of the window-frame; the pigeon entered through the open window, and permitted herself to be re-captured, so imperious was her demand for these principles. Her health was re-established; in three days she laid another egg. It is wrong, therefore, to conclude with M. Mouriès that a deficiency of phosphates is the only cause of the symptoms he observed; in this case the absence of chlorides was the obvious cause.

M. Mouriès has established, by interesting calculations, that grain furnishes a sufficient supply of phosphate of lime for the reparation of bone, but not for other essential functions of the economy. From the curious fact that there is a constant proportion between the temperature of animals, and the amount of phosphate of lime contained in their blood, he deduces the principle that this salt keeps up animal irritability, without which nutrition is impossible. The following table must interest physiologists:

	PHOSPHATE OF LIME.		TEMPERATURE.
	Mouriès.	Poggiale.	
Blood of the duck, - - - -	1.50		42°5 cent.
“ “ the hen, - - - -	1.35	1.25	41°5 “
“ “ the pigeon, - - - -	1.20	1.23	40° “
“ “ man, - - - -	0.80	0.6	37°5 “
“ “ the horse, - - - -	0.40	0.5	36°8 “
“ “ frogs, - - - -	a trace.		9° “

If these results are confirmed, it will appear that the ingestion of phosphate of lime is not only indispensable for the reparation of bone, but that it is connected with the function of calorification.

In the second portion of his memoir, M. Mouriès, starting from the principle demonstrated by Chossat, verified by Bous-singault, taught by Bérard, and now admitted by all physiologists, that diet is defective which does not contain enough phosphate of lime to repair the waste which is continually going on in the economy, attempts to prove that the food commonly consumed in cities does not contain the quantity of this salt which is required by nurses and pregnant women.

He commences by calculating the quantity of phosphate of lime which ought to be ingested in the twenty-four hours, which

he estimates from analyses of the excreta at 110 grains. He then attempts to show that this quantity is not contained in the food of nurses in cities. The urine of women in the country contains 90 grains of phosphate of lime in the twenty-four hours, while the amount of this salt in the urine of women in cities varies from 20 to 90 grains. M. Mouriès has sought to confirm his hypothesis by direct proofs; he has examined the food consumed in cities, and shown that it exhibits a deficiency of one half in alkaline phosphates. He has examined the milk of nurses, and shown that in 18 healthy country women the proportion of earthy phosphates in the milk varied from 1.2 to 2.4 per cent., while in the milk of 10 Paris nurses the proportion varied from 0.5 to 0.9, and in 7 others there was only a trace of phosphate of lime.

In the third portion of his essay, M. Mouriès adduces clinical facts in illustration of the advantage of supplying this deficiency of phosphate of lime in aliments. In 13 cases, in which the proportion of phosphate of lime averaged 0.7, 75 grains of this salt with twice that quantity of albumen was daily administered in soup; in a week the proportion of earthy phosphates in the milk rose to 2.1. In 5 cases pregnant women were subjected to the same treatment; the milk, after delivery, contained 1.9 to 2.1 of phosphate of lime. Only 3 of the 18 children died.

These results though insufficient to determine such a serious question, are yet very worthy of attention. In the debate to which they gave rise, M. Gibert vehemently condemned the present tendency of chemists to interfere in medical inquiry. The question of lactation was a medical one, he said, and was only to be solved by clinical observation. M. Bouchardat, on the other hand, feared only ignorance, and was not alarmed at the application of chemistry to medicines, especially when its results were as inoffensive as those he had discussed.—[*Ibid.*]

[From the New-Hampshire Journal of Medicine.]

Therapeutical Value of Ox Gall.

MR. EDITOR:—In the Journal for January a treatise on the medical virtues of Ox Gall met my eye; I can indorse every idea there advanced, and more; I have been in the frequent use of the article for quite a number of years, as an injection in constipation,—taken in pills in a dried preparation, and in a fluid state to arrest spontaneous emesis. It is an anti-emetic of much power, and entirely safe. A little anecdote occurs to my mind which took place in this vicinity some twenty years since.

A man of small intellect, and less cultivation, had a receipt

for preparing a strengthening plaster, and some other medicated preparations; of course was dubbed *Doctor*; he was a member of the Baptist church, the pastor of which was attacked with spontaneous emesis, which was not promptly arrested; some brother named Dr. Green; *he* had done great things in this way; a messenger was sent eight miles to inquire for his remedy; he had promised never to divulge, but he would go and see the man; arriving, he called for a hen, secludes himself, removes the liver, punctures the gall bladder, takes the bile and gives it to the patient, the vomiting is arrested, and the church *enamored*. They would have conferred on him M.D., had it been in their power. If my memory serves me he was *canonized*.

This article is here much used by the inhabitants in domestic practice, as a specific in most diseases. I recently listened to praises of a butcher touching gall. He recommended that of the hog as being far preferable to any other. I thought there might be some truth in the remark, for it must be admitted, the lords of creation resemble *that* animal more than any other.

In cases of convalescence, where the liver is torpid, the patient does not improve, has no appetite, how many of us have been benefitted, or at least our patients, by a recipe in a book on the liver by Dr. Saunders—consisting of soap, rhubarb, quassia, gin, &c., but gall is far preferable; use this until the liver resumes its healthy function.

I will insert a recipe, for a preparation of gall which I have used many years as a carminative in the griping and flatulence of infants, and to arrest emesis in adults.

R. Essence of anise, ℥ij., essence of cinnamon, ℥ij., mix thoroughly; to the above add ℥iv. ox gall,—mix well by agitation.

One drop of this for an infant in some herb tea (from a drop to a teaspoonful, according to age.)

In order to preserve gall pure, I put in a two quart bottle, O.ss. strong alcohol, carry my bottle to the butcher and request him to fill it. I keep it in the cellar. It will keep good for years.

ARIEL HUNTON.

Hyde Park, Vt., 27th Feb., 1854.

Sciatica.

Mr. Hancock read a paper on the causes and treatment of Sciatica before the Medical Society of London, Feb. 28, (*Med. Times and Gaz.*) of which the following is an abstract: He alluded to the various causes assigned as producing sciatica—

viz., disorder of the stomach and bowels, inflammation and disease of the sciatic nerves, syphilis, gout, obstruction and distension of the caput coli, tumors, or accumulated fæces in the course of the nerve, effusion of fluid into the sheath of the nerve, irritation and disordered state of the kidneys, and rheumatism, either acute or subacute; but that from the cases which had fallen under his observation, the prevailing opinion appeared to be that sciatica depends mostly upon rheumatism—an opinion which he considered erroneous, as having had ample opportunities of arriving at a conclusion, he felt convinced that the cause most productive of the complaint was irritation within the pelvis, either from loaded colon or cæcum, or from tumors formed within that cavity, or, as had been suggested to him by his friend and colleague, Mr. Goldsboro, by the hæmorrhoidal vein, which, forming a complicated plexus over the sacral plexus of nerves, would, when congested and engorged, cause undue pressure and irritation of the nerve; that although he would not presume to assert, in opposition to the high authorities who differed from him, that the disease never depended upon rheumatism, still he maintained that it so seldom did so, as to constitute the exception to the general rule, and not the rule itself. Mr. Hancock then enumerated some of the modes of treatment, recommended such as bleeding, cupping, calomel and opium, colchicum, quinine, carbonate of iron, Indian hemp, acupuncture, actual cautery, blisters, moxas, puncturing the limb, and introducing morphia and creosote into punctures. He did not consider the disease difficult of cure; on the contrary, he had found it readily and speedily yield to the remedies he had adopted, which consisted in thoroughly purging the patient with small doses of croton-oil, combined with blue pill, henbane, and compound extract of colocynth, and removing the sensation of bruising in the course of the nerve by sulphate of quinine, in doses of three grains thrice daily. He had commonly given croton-oil, because he had found it useful and convenient, but he did not attach any specific influence to this medicine, as he had found equally good results from turpentine and castor-oil, the aloetic purgatives; and he considered that any medicine acting upon the lower intestines would be of service. He did not consider local applications at all necessary, but that they were frequently injurious, by adding to the patient's sufferings. He narrated five cases which had fallen under his care, having been previously treated for rheumatism by the remedies appropriate for the affection, but without success. In one the sciatica had existed for nearly two years; in another, for above twelve months; and in the remainder, from four to two months. The most obstinate of

these was cured in three weeks, and the remainder in a fortnight, the latter period being that usually required. He could give many more cases of a similar character, but he thought those he had described were sufficient to prove the validity of his position, that in a vast majority of instances the disease did not depend upon rheumatism, but upon the causes which he had already alluded to; and he directed the attention of the Society to an interesting fact, which he had not found noticed elsewhere—namely, that sciatica almost always occurred on the right, and very seldom indeed on the left, side of the body; and when it did, he believed it was caused by impaction in the sigmoid flexure of the colon. In the majority of cases the affection commenced with stiffness, weight, and pain in the lumbar region, resembling lumbago. He was inclined to attach some importance to this fact, as affording a means of diagnosis between those cases depending upon loaded intestine and those resulting from tumor in the pelvis; and that where this symptom is absent, it is desirable to institute a careful examination, not only above Poupart's ligament, but in the perineum within the tuber ischii, and also by the introduction of the finger within the rectum. He had in two instances detected the existence of tumor in the pelvis by adopting these measures; and he thought this the more desirable from the importance of avoiding irritation as much as possible in cases of this description.—[*N. Y. Jour. Med.*

Upon Filtration of the Air in connection with Fermentation and Putrefaction. By H. SCHRODER and Dr. TH. VON DUSCH.

§ 1. In the year 1837, Dr. Schwann, of Berlin, communicated a series of experiments, which proved that putrefaction did not occur in a freshly boiled infusion of flesh, and that the vinous fermentation did not take place in a freshly boiled fluid, previously susceptible to fermentation, if the air that was suffered to enter had been first exposed to a red heat. It was proved by these experiments, that it is not the oxygen, at least not it alone, that causes the vinous fermentation, the putrefaction of an infusion of flesh, or even the formation of mould and infusoria, but a substance contained in the atmosphere and destroyed by heat.

Schwann considered it probable that fermentation and putrefaction were induced by sporules of microscopical cryptogami and infusoria, contained in the air, which developed themselves and increased at the expense of the fermenting or putrefying substance, and thus continued the process. These sporules or

germs existing in the air, are, however, destroyed by heat. Similar experiments, with like results, were made by Ure and Helmholtz.

§ 2. Regaud de l'Isle has shown in his examination of the miasmatic influences of the Pontine marshes, that an interposing wood is a protection from the noxious effects,* and Becquerel says, "Une forêt interposée sur le passage d'un courant d'air humide, chargé de miasmes pestilentiels, préserve quelquefois de ses effets tout ce qui est derrière elle, tandis que la partie découverte est exposée aux maladies. Les arbres tamisent donc l'air infecté, et l'épinent en lui enlevant ses miasmes."†

Finally, Löwel communicated last year a series of remarkable experiments, upon the crystalization of an oversaturated solution of sulphate of soda, and proved that such a solution, which, when in contact with air, crystallises almost instantaneously, does not crystallise if the air has been previously filtered through a layer of cotton.

§ 3. The facts above mentioned, being all that is known with regard to fermentation and putrefaction, in connection with the filtration of air, led one of us in January, 1853, to the supposition, that a freshly boiled organic substance, in contact only with air properly filtered, would be protected from fermentation or decomposition. In order to test this supposition, we performed the following experiments :

§ 4. Cotton was selected as a means of filtration, because it is known that it retains upon its surface infectious diseases, and is even capable of conveying them to a distance.

The apparatus used for filtering the air, consisted of a tube, about 1 inch in diameter and 20 inches in length, filled with raw cotton, moderately compressed; both ends were closed with waxed corks, through one of which was passed a short, open glass tube about $\frac{1}{4}$ inch in diameter; the other end was connected by a tube of similar diameter bent at right angles, with the flask containing the meat or infusion to be experimented upon. The flask itself was connected by a tube of the same diameter, with a gasometer or air-tight vessel holding about one cubic foot of water, and provided with a discharge cock at the bottom, and another cock to intercept the communication between it and the flask; besides an opening for introducing water which could be perfectly closed. The joints all being air-tight, it is evident that as the water ran out of the gasometer, fresh air must enter through the cotton and the flask to replace it. When all was in order, the discharge cock was so regulated that the water could escape in drops only, and the air constantly passed

* Bibl. Univers. vol. xiii.

† Compt. Rend. hebd. xxxvi. 12.

through the apparatus in proportionate amount. Before being put into the glass tube the cotton was heated in a water-bath, and the contents of the flask in all the experiments were brought to ebullition, which was continued until the tubes were heated up to the part where the cotton commenced.

§ 5. The first experiment was commenced on the 9th of February, 1853. Two flasks, placed side by side, each containing meat, and the freely boiled decoction thereof, were made use of. One vessel was connected with the filtering apparatus described above, the other was left open. The meat and the decoction in the open flask, began in the second week to develop an intolerable odor of putrefaction, so that it was necessary to remove it from the laboratory.

On the 6th of March, we opened the other flask, through which during the whole time—that is during 23 days and nights—filtered air had been passed. The appearance of its contents was entirely unchanged. There was no trace of odor, but upon being heated, the pure characteristic smell of fresh unseasoned broth was developed.

§ 6. The experiment was repeated in a warmer season of the year, 20th of April.

a. We placed some meat in water, as described in § 4. The treatment was the same as in § 5, except that the current of air was only passed through during the day, and the vessel closed at night.

b. Besides this, was placed in an open flask, fresh meat boiled in water.

c. At the same time, a flask containing similarly prepared meat was closed with a waxed cork, through which was inserted a glass tube about 12 inches in length, and 1 line in diameter, the object being to retard the entrance of air.

d. In the fourth flask, we put meat boiled in water, and closed with a loose stopper of cotton, over which a large padding of cotton was placed, fastened to the neck of the flask by a silken thread. Upon the cooling of the flask the fresh air entering must necessarily be filtered in passing through the cotton.

In the second week, the meat in the open flask (*b.*) underwent stinking putrefaction, and was obliged to be removed from the laboratory.

On the 10th day, a thick growth of mould was observed in the flask with the narrow glass tube, (*c.*) At the expiration of 19 days, upon being opened, only a mouldy smell was perceived, not the odor of putrified meat.

The two flasks, (*a.* and *d.*) through which filtered air alone had been passed, were opened on the 14th of May, at the expi-

ration of 24 days; no mould formation or any striking change of substance was perceived; a whitish appearance was observed in some parts of the meat, which had not been noticed at least by us before.

The substance in both flasks was found, upon opening, to be without odor; upon being heated, the unchanged smell of fresh broth was developed; the taste was that of fresh unseasoned broth. Like fresh broth, it reacted slightly acid. The distillate of a part of this, was entirely neutral.

By these experiments it is therefore established, *that meat, freshly boiled in water, and freshly boiled broth, remain for several weeks completely unchanged, if only such air as has been previously filtered through cotton is suffered to enter.*

§ 7. On the 14th of May we took from Grohe's vinegar manufactory of this place, some freshly boiled sweet malt-wort, to which some hops had been added. It smelt and looked like beer wort, tasted sweet, and reacted only slightly acid. This wort was put in the flask connecting with the filtering apparatus, and treated for 23 days, as described in § 4. In the last eight days a cubic foot of air was daily drawn rapidly through, so that a visible depression was caused upon the surface of the liquid. An open flask was at the same time placed beside it and filled with freshly boiled wort. After eight days the formation of mould commenced in the open flask; the liquid became also cloudy, whilst that in contact with the filtered air was perfectly clear, and remained free from mould. On the 6th of June, 23 days after, we opened the flask; the liquid was as clear as at the beginning of the experiment, and developed upon being heated the odor of unchanged wort. The taste was sweet and unaltered, and the reaction slightly acid, as before the experiment. Examined with Steinhold's beer test, we obtained 0. p. c. of alcohol, and 7.9 p. c. of extract of malt. We had, previously, neglected to make a determination of the value of the liquor experimented on. We could only, therefore, compare it with a new sample of fresh wort, taken from the same manufactory. This gave with Steinhold's test, 0. p. c. of alcohol, and 7. 7. p. c. of extract of malt, therefore of the same value, excepting the slight concentration of the first fluid by evaporation during the experiment. *We believe to have established by these experiments, that at the temperature of May and June of this year, a sweet fermentable wort will remain entirely unchanged for weeks, if only such air has access to it as has been previously filtered through cotton.*

§ 8. With the new sample of wort above mentioned, we commenced on the 6th of June another experiment. We wished to see, as a farther check upon the experiment, if upon

the removal of the cotton from the filtration tube, (the treatment otherwise being the same as in §4.) the contents of the flask would remain *unchanged*. An open flask was again placed beside it. The formation of mould commenced in the latter, within the first week, but not until after 12 days in the one connected with the tubes. It commenced with a rapidly growing speck of mould, exactly on the spot where the current of air came in contact with the surface of the liquid. The liquids in both flasks became cloudy. It was, therefore, evident that protection from these changes could only be found in filtering the air through cotton.

§ 9. It was now of interest to ascertain, whether under like circumstances, boiled fresh milk would remain unaltered, or whether it would curdle or putrefy. But all the experiments which we made in the months of June and July, gave only *negative* results. The milk coagulated quite as rapidly in filtered, as in open air; and in every case, the odor of putrefying casein was developed, as soon with the former as with the latter. The formation of mould was, however, entirely prevented by the filtration of the air.

This negative result reminded us of a similar one, obtained by one of us, in connection with L. Gmelin, in 1846, in regard to the behaviour of milk, when placed in contact with a large amount of confined air previously heated.

Negative results were also obtained in all experiments with fresh meat that was heated in a water-bath, first being placed in a flask without the addition of water; the flask while yet hot, was closed as in §6. *d.* with a stopper of cotton, and the neck surrounded by a thick padding of the same material. The meat became offensive, as quickly as in the open air or in a flask, which was corked as in §6. *c.* communicating with the air only through a long narrow tube. The only difference was, that the greenish-brown liquid, that in the open flask surrounded the putrefying pieces of meat, was observed under the microscope to be alive with infusoria, with *Monas termo* or at other times with *Fibrio lineola*; whilst in the same liquor that putrefied in filtered air, *Fibrio lineola* decidedly did not appear, and even *Monas termo* could not be recognized with certainty; no other infusoria were present. We believe, therefore, that in all these experiments, the meat had not been sufficiently heated to its centre, and that the experiment should be repeated in another manner.

§ 10. On the 18th of July, unfortunately the hottest season of the year, we again boiled meat in water, and while hot, corked it, and padded it over with cotton, as in §6 *d.*; a test fluid in an open flask beside it, showed, on the 22d of July, the

odor of putrefaction, and on the 23d, a species of large infusoria could be recognized under the microscope, which we were not able to determine. They were globules or cells of the size of yeast globules, in constant voluntary motion, drawing themselves together like balls, and then stretching themselves out; we were, however, not able to perceive any further organization.

Upon the liquor that was under the cotton, we perceived a kind of fat skin, that covered the whole surface and gradually thickened. In the third week, the liquid acquired a reddish color; and upon being opened on the 15th of August, gave the odor of stinking fat, which, however, upon being warmed, was mixed with the odor of fresh broth.

We feel obliged to mention this experiment, because we do not consider ourselves justified in withholding it; not because we think any particular stress should be laid upon it; conclusions must not be drawn from a single experiment of this kind. Our idea is, that the meat in question, had not been boiled long enough, for the boiling had been stopped as soon as the liquid foamed up, so that probably all the serum in the interior of the meat was not coagulated. It is also very possible that from the high temperature at that time, the fat became rancid, which might have taken place even after boiling a long time. This can only be determined by further experiments; but even in this experiment, made during the hottest weather, putrefaction did not occur within 28 days.

§ 11. Although we believe that we have obtained from these experiments decidedly positive results, yet they should by no means be considered as concluded.

It appears then settled that there is a spontaneous decomposition of organic substances, as the putrefaction, of meat without water,—of the casein of milk—as well as the transformation of the sugar of milk in the milk into lactic acid, that requires for its commencement only the oxygen of the air, and that there are other phenomena of fermentation and putrefaction, which are improperly placed in the same category; viz: the fermentation of malt wort, and the putrefaction of meat under broth, which require for their commencement, besides the oxygen, some unknown admixture in the atmospheric air; which according to Schwann's experiments, is destroyed by heat, and according to ours, removed by filtration through cotton. It will be a problem for future experiments, to divide into two classes those phenomena, which are now united under the general idea of fermentation and putrefaction. Our attention hereafter will be particularly devoted to certain simple organic combinations, viz: pure albumen, pure fibrine, casein free from fat, &c. &c.

§ 12. We have as yet only made use of cotton, as a means, of filtration. It will be the object of future experiments to try a number of other substances for this purpose. We shall first use coal, sulphuret of lead, pumice stone, powdered glass, gypsum, &c. &c.

It is yet to be investigated, whether certain filtering substances will not remove the germs of one species of putrefaction and fermentation, permitting those of another to pass through which in its turn may be removed by some other filtering medium; thus dividing the filtering substances into different classes.

Since there is still so much that remains undecided in an experimental way, we at present withhold all theoretical deductions from our researches.

The experiments mentioned above, will require from their nature, so long a lapse of time, that we do not think it right to withhold any longer from the public, the positive results already obtained.—[*Leibig's Annalen. Med. Examiner.*]

EDITORIAL AND MISCELLANY.

Scarlatina—The subjoined extract from the letter of an esteemed correspondent, who resides in middle Georgia, will explain the object of the remarks which follow it. We have had, in Augusta, no epidemic of scarlet fever this year, although a few cases have occasionally occurred.

“We have had an eruptive fever here for a month or two, and I understand you have had the same, or a similar disease, in Augusta. There is diversity of opinion among the “faculty” here, as to its character. I think the majority of the cases are Roseola, and a few cases of *Scarlatina*; the other physicians say it is all scarlatina. If you have had the same epidemic in Augusta that we have had, I, for one, would like to have your views on it through the Journal.”

Scarlatina was, we believe, first introduced into Georgia in 1834, by a family who came from New York to Augusta, and one of whose inmates was seized with the disease on the day after their arrival. From that case it spread over the whole city, causing the most frightful mortality ever experienced among the children of this community. From this place it was carried into the country and has ever since been domiciliated in Georgia, and has from time to time manifested itself in the form of distinct epidemics—in various localities.

Epidemics of Scarlatina, like epidemics of any other disease, must be induced by a deleterious agent, which is probably diffused through the atmosphere. It is also probable that this morbid principle is *unequally* distributed, and that the mildness or the severity of the epidemic depends upon the relative quantities brought to bear upon the human system. Judging from analogy, may we not infer that those who have the disease in a mild form have imbibed a smaller quantity of the scarlatina poison than those who suffer a violent attack. May we not indeed admit that the degrees of intensity of the disease must be as various as the doses of poison inhaled—or that the manifestations of the disease are in a direct ratio with the potency of its productive cause. Scarlatina being induced by a specific agent, must necessarily in each case be an indication of the force of the active cause; and this force may vary ad infinitum, from the smallest quantity susceptible of being felt by the human system, to the overwhelming amount which produces inevitable and prompt annihilation of the vital forces.

Hence it is that during the prevalence of epidemic scarlatina we find it sometimes revealing itself in such a mild form as to induce a mere efflorescence of the surface without febrile disturbance, which may well be mistaken for simple erythema or non-specific roseola. In other cases an equally slight anginose affection, either alone or in combination with the cutaneous element, will constitute the only symptom.

The propositions just enunciated, although true in the abstract, must be viewed in connection with other circumstances, which are equally well known to exert more or less influence upon the causation and development of disease. Climate, seasons, age, sex, temperament and stamina, are fruitful sources of perturbation and modification in the sequence of cause and effect, which ought not to be overlooked in estimating the relation of the one to the other. As in the administration of remedial agents, which may be weighed or measured accurately, the dose is known to act with various power, according to the circumstances just referred to, so will equal quantities of an atmospheric agent inhaled be followed by very different results, in different climes, seasons, ages, sexes, temperaments, and degrees of resistance. With regard to scarlatina, for example, its violence and consequent fatality will be usually found to be much greater in northern latitudes than in the more temperate—in New England than in Georgia. Yet we have not observed any special difference induced in its intensity in Georgia by the seasons. While, in our section of country, adults are very

generally exempted from its inroads, they are much more susceptible in New England. Of the few adults who have taken this disease in Georgia, the great majority have been females; and it is among these alone that the writer recollects ever knowing of a fatal termination.

Although the stamina or power of resistance to disease is usually regarded as less developed in the lymphatic than in other temperaments, our observation does not authorize us to consider this to be true with regard to scarlatina—for we are rather, on the contrary, disposed to the belief that the greatest proportion of mortality occurs in children of apparently robust constitution. In this respect scarlatina obeys the same law as yellow fever, which is, we think, more apt to take off the hale and hearty, than the more delicate members of society. But yellow fever is more fatal with adults than with children, whereas the converse obtains in scarlatina.

The *name* by which mild cases are to be designated is by no means unimportant; for while *simple* erythema, roseola, or sore-throat, need but little attention, there is no case of scarlatina so slight in its first stages, that it may not, by contagion, impart the more formidable disease to other persons, or be itself followed by the most serious sequelæ. Some of the worst cases of anasarca we have ever seen to follow scarlatina, occurred in patients who had had only a roseolar eruption and been subject to no treatment directed to the kidneys. It is therefore not a matter of indifference whether we call such cases *roseola*, or *mild scarlatina*. Every parent knows that scarlatina ought to be avoided by his children; but he may not be equally careful to keep them away from those who are said to have mere roseola.

There is a peculiarity in relation to the fatality of scarlatina in children, which we do not recollect to have seen noticed by authors, and which we cannot account for satisfactorily. It is the fact that by far the greatest number of deaths occur in subjects between the ages of 4 and 8 years. As a general rule, the younger a child is, the less effectually will he resist the inroads of disease—although the non-professional not unfrequently seem to think it better for their children to take measles, whooping cough, &c., in early life. We believe that statistics will always show the mortality from these diseases to be in a direct ratio with the youthfulness of the patient. In scarlatina, however, there seems to be (in Georgia) comparatively little danger prior to the age of two years—the danger reaches its maximum of intensity at 4 years of age and continues equally so until 8 years—gradually lessening from this until 12 years of age, and then becoming, as in infancy, very rarely fatal.

As we have so much digressed from our original purpose, we may be permitted to add another remark. Writers generally affirm that the eruption in scarlatina occurs on the second, or within a few days after the inception of the febrile symptoms. According to our observation of the disease in this section of country, from its first appearance in 1834 to the present time, the eruption may always be seen upon a portion of the body, or upon the whole of it, within the first 24 hours of febrile excitement; and in the majority of cases, it may be seen upon the trunk, especially the back, within the first 12 hours. Such has been the uniformity of this rule, that the writer has for many years felt quite safe in declaring that the case would not prove to be one of scarlatina if the patient had had fever 24 hours, and that no eruption was yet perceptible.

Finally: the milliary vesicles which sometimes show themselves in this disease, are much more frequently seen in negroes than in whites—and the desquamation is also more extensive or in larger plates in the African than in the Caucasian.

The above remarks, hastily thrown together, and consequently without much regard to order, are based upon a long observation of the phenomena of scarlatina as manifested in this part of Georgia. That these may differ in various climates and during other epidemics, we readily admit. If what we have observed here does not accord with the experience of other Southern practitioners, we would like to be apprized of the fact

Delirium Tremens among the Troops in Canada.—The Medical Chronicle (of Montreal) contains an interesting statistical account of the occurrence of delirium tremens amongst the troops in Canada for the last thirty years, by Dr. HENRY—from which we derive the following Recapitulation:

Number of cases of Delirium tremens in thirty years, . . .	1769
Number of deaths,	143
Ratio of cases to army, first fifteen years, as 1 to	175
Do., second fifteen years, as 1 to	75
Do., the whole thirty years, as 1 to	93
Ratio of deaths to cases, first fifteen years, as 1 to	16
Do., second fifteen years, as 1 to	12
Do., the whole thirty years, as 1 to	12½

Death from the sting of a Wasp.—We perceive in the newspapers the statement that a gentleman in Madison county died in 15 minutes

from the sting of a wasp. Will some physician who *knows* the circumstances of the case, oblige us with an account of them. It would be interesting to know by what kind of wasp the injury was inflicted—and whether any blood-vessel or nerve was stung.

BIBLIOGRAPHICAL.

The Science and Art of Surgery; being a Treatise on Surgical injuries, diseases, and operations. By JOHN ERICHSON, Professor of Surgery in University College, and Surgeon to University College Hospital. Edited by JOHN H. BRINTON, M. D. Illustrated by 311 engravings on wood. Philadelphia: Blanchard & Lea. 1854. 8vo, pp. 908. (For sale by T. Richards & Son, and McKinne & Hall. Price \$5 00.)

This work is the substance of the course of Lectures delivered for some years by the distinguished successor of Liston—and bears the impress of learning, wisdom, and experience. Although works upon Surgery have been very much multiplied of late years, the advances of art demand their reproduction at short intervals, in order to facilitate the diffusion of new facts and opinions. The work before us appears to be well posted up, so far as it goes. It contains nothing, however, upon the very important class of diseases peculiar to the eye—the author having preferred to leave this branch to be studied in special treatises. The wood cuts are not as good as they might be; but will answer very well. We think that we may honestly recommend the book to the profession.

Woman: her Diseases and Remedies. A series of letters to his class. By CHARLES D. MEIGS, M. D., Professor in Jefferson Med. College, &c., &c. 3rd edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1854. 8vo., pp. 672. (For sale by T. Richards & Son.)

Having already had occasion to notice this work, it is at present merely necessary to state that a third edition of any work upon medical subjects is at least *prima facie* evidence that it has been approved by the profession. We doubt not that in the present instance, the patronage will be continued.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M. D., F. R. C. P., &c., &c. 2d American, from the 2d and enlarged London edition. Philadelphia: Blanchard & Lea. 1854. pp. 485. (For sale by T. Richards & Son.)

As physician to the "Hospital for Sick Children," Dr. West has had practical advantages probably not inferior to those of any practitioner in England. The substance of his course of Lectures is here

presented with such improvements as have been suggested since the publication of the first edition. The work is eminently practical, and as such must be favorably received by the profession.

Clinical Lectures on Pulmonary Consumption. By THEOPHILUS THOMPSON, M. D., F. R. S., Physician to the Hospital for Consumption and Diseases of the Chest, &c., &c. Philadelphia: Lindsay & Blakiston. 1854. pp. 240. (For sale by T. Richards & Son.)

A monograph upon pulmonary consumption would seem to be scarcely worth reading when it is remembered that we know of no radical cure for this disease. Yet no physician ought to be satisfied to rest with folded arms, and witness the ravages of such a scourge, without making some attempt to stay its effects. It is only by monographs that we may expect to perfect ourselves on any medical subject; and the lectures before us are calculated to do a great deal of good. Many persons annually die in our country with consumption, who might have been saved by judicious management.

On Rheumatism, Rheumatic Gout, and Sciatica, their pathology, symptoms and treatment. By H. W. FULLER, M. D., Cantab., F. R. C. P., assistant physician to St. George's Hospital, &c. New York: S. S. & W. Wood. 1854. 8vo., pp. 322. (For sale by T. Richards & Son.)

This is a very complete monograph upon a class of affections alike painful and intractable. The learned author has advanced many original views worthy of mature consideration. As we hope to notice some of them hereafter, we will at present merely say that practitioners should welcome any new light upon the subject, and buy this book.

A Universal Formulary: containing the methods of preparing and administering officinal and other medicines. The whole adapted to Physicians and Pharmacutists. By R. EGLESFIELD GRIFFITH, M. D. A new edition, carefully revised and much extended, by ROBERT P. THOMAS, M. D. With illustrations. Philadelphia: Blanchard & Lea. 1854. 8vo., pp. 651. (For sale by McKinnel & Hall.)

We are happy to announce a new and improved edition of this, one of the most valuable and useful works that have emanated from an American pen. It would do credit to any country, and will be found of daily usefulness to practitioners of medicine. It is better adapted to their purposes than the Dispensatories.

Handbook of Chemistry--Theoretical, Practical, and Technical. By F. A. ABEL, Professor of Chemistry at the Royal Military Academy, Woolwich, &c , &c., and C. L. BLOXAM, formerly first assistant to the Royal College of Chemistry. With a Preface, by Dr. HOFFMANN : and numerous illustrations on wood. Philadelphia : Blanchard & Lea. 1854. 8vo., pp. 681. (For sale by McKinne & Hall. Price \$4 00.)

This is a very elaborate work, containing, besides the Introduction, divisions treating of chemical manipulations, elementary chemistry, and analytical chemistry. The numerous beautiful illustrations added to this American edition enhance the value of the work very much. It is a very valuable addition to our stock of chemical works.

In addition to the works above noticed, we have to acknowledge the reception of a large number of pamphlets, &c., among which we may name the "*Transactions of the Medical Association of the State of Alabama*," a very creditable volume of 190 pages, to which we expect to refer again. Alabama is among the foremost in medical talent and industry.

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from February to April, 1854—a work containing much valuable information.

Remarks on Croup and its Treatment. By HORACE GREEN, M. D. Quite an interesting paper.

The American Journal of Science and Arts. A capital number of a work which ought to be extensively patronized.

Archives de Physiologie de Thérapeutique et d'Hygiène. This is the first No. of a series of monographs to be issued in Paris, semi-annually, by M. BOUCHARDAT, Professor of Hygiène in the Medical School of Paris. The present No. contains 376 pages upon Digitalis and Digitaline, by MM. HOMOLLE and QUEVENNE, and is calculated to satisfy the most inquiring mind with regard to this remedial agent.

Inhalation and other Treatment in Phthisis. Read before the Suffolk District Medical Society, May 27th, 1854, by WM. M. CORNELL, M. D.—In the Boston Med. and Surg. Journal for April 19, are the following editorial remarks:—"It is said that the benefits of inhaling the vapor of iodine in pulmonary affections, have been underrated. Until within a short time, there has been but little notice taken of iodine in this form of medication; and we are pleased to learn that several medical gentlemen in Europe have lately given their attention to the practical application of it in cases of confirmed phthisis. It is hoped that their use of it will be attended with good results, and

that it may prove a successful remedy in some cases of this intractable disease."

In 1851, in the 43d volume of the same "Journal," the writer communicated some remarks on the subject of "Inhalation in diseases of the air passages and of the lungs." In that paper the belief was expressed that "more benefit may be derived from *inhalation* than has generally been experienced." The vapor of iodine is there named, among other articles, for inhalation, and cases given from Sir Charles Scudamore, Murray, Barton, and Corrigan, where it had been advantageously employed. Some physicians in this country were disposed to give it, and other articles there named, *a trial*; among whom, was the late Dr. Peirson, of Salem. The American Medical Association, by their committee on the treatment of these diseases, referred respectfully to these inhalations; and Drs. Wood and Bache, in the last edition of the United States Dispensatory, have mentioned the inhalation, quoted from the Boston Journal. But others looked upon the whole scheme as chimerical, and useless, if not worse.

Since that period, however, medical men abroad, and some in this country, have looked more carefully into the matter, and put the treatment in practice. The writer has watched the reported cases, he believes, in all the Journals, as they have appeared, and still believes, as then expressed, that, if we are ever to find realized the remark by Dr. Armstrong—that "at some future period the whole class of tubercular diseases will be arrested" by medical treatment, no small share of that treatment will consist in remedies addressed, by inhalation, directly to the diseased organs, and to the integument, rather than the stomach of the patient.

It is by no means strange, when *phthisis* is weekly sweeping to the grave a larger number of victims than any other disease, and this under the most approved treatment, that physicians should look with a somewhat sceptical eye upon any new plan of treatment which promises to be in any measure successful. They doubt (and they ought to doubt) the utility of any plan of treatment, till they have evidence of its success. But they ought, also, to give any feasible plan, which has been stated to be successful, a fair trial. No one doubts that phthisical patients sometimes recover, both with and without treatment. But it does seem incumbent upon the medical profession to put in action all possible means to stay this great ravager of our land.

During the last three years the writer has treated (among many who have died) some phthisical patients who have recovered, among whom were the following:

Mr. M., a young man aged 23 years; well marked *phthisis*; right lung cavernous. Several remedies were tried, but without any good effect. At last, he was put upon the following:—℞. Cod-liver oil, ℥iv.; sol. carb. potash, ℥ss.; pulv. g. Arabic, ℥j; syr. orange peel, ℥j; spirit peppermint, 3ij. Of this compound, a large tablespoonful was taken four times a day. The patient began to grow better from the commencement of taking the medicine. He also inhaled the vapor of tinct. iodine and creosote, five drops of each in conjunction,

several times a-day. The inhalation quieted rather than provoked coughing. But what part of the cure is to be ascribed to the medicine taken, and what to the vapor inhaled, or whether any to either or both, he is not prepared to say. This was the treatment under which he recovered, and he has now remained apparently well more than a year.

Miss C., a young lady from the country, had *phthisis*. Cough excessively harassing; expectoration of viscid pus profuse; night sweats, &c. Was treated the same as the above. She gradually improved in strength and flesh, the cough and expectoration diminishing daily, for eight weeks, when she returned to her home in New Hampshire. Two months after her return, she wrote me a letter, in which she says, "my health is now good, and I am married."

Mr. L., a gentleman aged 27 years, married; residence one hundred miles from this city. Wishing to visit a brother in this vicinity, was recommended to my care by Dr. H., his physician at home. He had disease of the right lung, but did not appear to be a *strumous* patient. He was short, stout built, and had a broad chest. His cough and night sweats were very troublesome. The cod-liver oil he was reluctant to take; and when, at my earnest request, he did take it, it would not set on his stomach. He therefore soon abandoned its use. He was put upon the *leontodine*, the concentrated chemical extract of the *taraxacum*, and the *cornine* of the *cornus Florida*, of Keir's & Co., according to the following:—℞. Cornine, grs. ij.; Leontodine, grs. ij. M. Sum. at once, three times a-day. He also inhaled the vapor of iodine, gutt. x, three times daily. Under this treatment, for eight weeks, he gradually improved, and returned home in much better health than when he first came to me. Each of these patients was freely rubbed with equal parts of warm sweet oil and New England rum, morning and evening.

I am not prepared to say how much of the benefit, which appeared to result from this treatment, was to be ascribed to either the medicine, the inhalation, or the unguent, or whether either did any good. The patients improved while being treated, and that it is all I would say about it.

I have employed inhalation of *creosote*, for more than three years, in *phthisis*, in *bronchitis*, and in a few cases of *gangrene* of the lungs. I was first led to use it in *gangrene*, by supposing, from its name, and the Greek words from which it is derived (*kreas*, *flesh*; and *soter*, *preserver*, that is, *flesh preserver*), that it might possibly be useful, as an antiseptic, in a gangrenous lung; and as the best way to introduce it to the lung, resort was had to *inhalation*. At the time when I commenced the inhalation of creosote, I had not seen any account of its having been employed, as a remedial agent, in *that form*, not even in European journals. But in the second volume of the last edition of Pereira's *Materia Medica*, re-published in this country at the commencement of the present year, I find the following remarks:—"The inhalation of creosote vapor is occasionally useful in relieving excessive bronchial secretion. This inhalation may be effected by diffu-

sing a few drops of creosote through water or a mucilaginous liquid, and breathing through this by means of the ordinary inhaling bottle."

In the first volume of the same work, Dr. Pereira says, "Inhalation of iodine vapor has been used in phthisis and chronic bronchitis. In the first of these diseases, it has been recommended by Barton, Sir Charles Scudamore, and Sir James Murray. I have repeatedly tried it in this, as well as in other chronic pulmonary complaints, but never with the least benefit."

I think I can say it has been beneficial in my hands, and I shall continue to use it.

I have also, up to the present time, used with benefit the *powder of nitras argentii* and lycopodium, prepared according to the formula of Dr. Chambers, as published in the 43d volume of the Boston Medical and Surgical Journal, in chronic laryngitis, bronchitis, and incipient phthisis.

I will add in conclusion, that though I never use inhalation of any kind to the exclusion of a general treatment, yet I consider it a useful adjuvant in the management of these generally chronic and often fatal diseases; and if a patient puts himself under my care, I never feel that I have done my whole duty to him, unless I have tried both general and local treatment. I believe the *pathology* of phthisis has been but imperfectly understood; and that, in most cases, the *skin* is first in fault. But this is a point on which I will not enlarge at present, only to say, that every one knows how very intimate is the sympathy between the integument of the body and the respiratory organs. Hence, in the treatment of all phthisical patients, I have always paid special attention to the skin. For the last five years I have been in the habit of applying the *alcoholic lotion*, recommended in such cases by Marshall Hall; but for three years I have directed my patients to be rubbed over the whole surface of the body with equal parts of warm olive oil and New England rum; and it is my opinion that no part of my prescriptions has been more beneficial. If opportunity should offer, I may say more on this treatment at a future time.

I have recently treated a case of *aphonia* of more than a year's standing, with the alcoholic tincture, iodine 3j. to 3j. of alcohol, according to the recommendation of Dr. Bennett, in the Medical Times and Gazette, and republished in the 28th Part of Braithwaite's Retrospect. The tincture was applied, externally, over the larynx, with a camel-hair pencil, every other day for a week. The pain produced by so strong a solution was considerable, and the friends of the young lady, seeing her suffering, desired her to desist. I had concluded to forego its further application, when she suddenly surprised us by the return of her voice. *Galvanism* had been used for two weeks, previous to the application of the *iodine*; the current being passed, for fifteen minutes daily from the larynx to the cervical vertebræ. In this case there was no disease of the lungs, but chronic inflammation and enlargement of the chordæ vocales. The voice still continues.—[*Boston Med. and Surg. Journal.*]

On the Production of Local Anæsthesia.—Dr. SNOW read a paper before the Physiological Society on the above subject.

He said that the only means they as yet possessed of causing complete local anæsthesia was that of applying cold, as recommended by Dr. James Arnott. When a piece of folded lint, wetted with chloroform, was applied to the skin, and covered with oiled silk, or any other impermeable material, it caused redness of the part, and a sensation similar to that caused by a mustard poultice. In about half an hour there were numbness and a diminution of sensibility, so that pricking with a needle caused less pain than at other times; but he had not been able to produce complete anæsthesia either with this or any other medicine applied to the sound skin. The reason of this was the very slow and sparing manner in which fluids permeated the cuticle, and the circumstance that the small quantity which did permeate the cuticle was afterwards carried away from the part in the circulating blood. When denuded of cuticle by a blister, or any other means, the skin was readily made insensible, even by the vapour of chloroform, so that the raw surface might be rubbed without causing pain. The insensibility caused by the application of a mixture of pounded ice and salt extended only to a very slight depth, as he had ascertained in the following way :—He had congealed part of the palmar surface of the hand and fingers, making a space of two inches square quite hard and insensible, when, on examining the skin which connects the roots of the fingers on the dorsal surface, he found it quite sensible to pricking, even when separated from the palmar surface by a thickness of only the tenth of an inch. The application of ice and salt caused great pain, and the pain was still greater as the sensibility returned in the part, which remained tender for upwards of twenty-four hours. He, therefore, considered this application hardly suited, even for operations confined to the skin, except in cases where the surgeon or patient had an objection to the inhalation of chloroform. The French had lately introduced a plan of refrigeration by dropping ether on the part, and increasing the evaporation by a current of air from a bellows. Some minor operations had been performed in Paris with scarcely any pain, when this process had been applied, and he (Dr. S.) had tried it on a patient of Mr. Ure, in St. Mary's Hospital, with an ulcer of the leg, the callous edges of which it was desirable to divide. The incisions on that edge of the ulcer where the ether had chiefly been applied were not felt at all, and the others caused very little pain. This process was attended with less pain than the application of ice and salt, and probably might be much improved in efficacy.

Mr. Richardson had succeeded in producing local anæsthesia by placing folds of cloth over an ulcer, with an opening in them; over this he placed a piece of lint saturated with chloroform. The whole was enveloped in oil silk covering, and insensibility in the part exposed to the chloroform was the result.

Dr. Crisp had seen Dr. Simpson perform some experiments with.

chloroform in 1848. The hand was found to become numbed when placed in a jug containing the agent, although the liquid was not touched. When certain portions of a worm were touched by chloroform, they become paralyzed. There was one curious circumstance about chloroform—viz., nineteen out of twenty persons might take it with impunity, whilst the twentieth, though apparently healthy, might die. The same fact held good with respect to cats, the influence being upon the heart, and dependent upon some peculiarity of constitution.

Mr Potts mentioned a case of severe rheumatism which had been treated with complete success by the application of cold, as recommended by Dr. Arnott. In this case the cold was applied for the space of five minutes, and the patient did not complain of pain.

Dr. O'Connor had succeeded in producing local anæsthesia on ulcerated surfaces by saturating folds of linen with chloroform, and placing them over the part.

Dr Gibbs said that strong extract of tobacco, when applied locally, acted in some cases as an anæsthetic.—[*London Lancet*.

Vegetable growth in the "fur" of a coated tongue.—Prof. Alonzo Clark presented to the New York Pathological Society, the results of some recent inquiries made by him, into the nature of the "fur" found in large quantities on the tongue of a patient in a very low condition.

The fur had a mossy white appearance, and was even $\frac{1}{8}$ of an inch thick, or more, covering the mucous membrane of the lips and cheeks as well as the tongue."

It was found under the microscope, to consist of

1st. Epithelial scales.

2d. Vibriones, and

3d. An abundant vegetable growth.

In the scale, there was nothing remarkable. The vibriones were very large and active animalculæ. The spores from which the vegetable fibres were produced, were "sometimes imbedded in the epithelial cells, and sometimes packed between them"—Its quantity was astonishingly great. Dr. Clark found, after research, that he had been preceded by M. Robin a few months in this discovery. This growth is probably common in many exhausting diseases. It is believed to be constantly present in the disease called "muguet" by the French. The sulphurous acid is found to destroy this parasitic vegetation, and may be considered the most appropriate remedy for it.

[*Buffalo Med. Journal*.

Death from Chloroform.—Three more cases are to be added to the melancholy list of deaths caused by the inhalation of this potent article.

A woman 37 years of age, who was to have a chronic mammary tumour removed from her left breast, by Mr. Hawkins, at St. George's Hospital, was given chloroform; not more than twenty minims were inhaled, when death quickly ensued.

A man, 18 years of age, died May 3, 1854, at the Locke Hospital, after inhaling chloroform, prior to the operation for phymosis.

The subject of the third case was a woman, about 40 years of age, who was to be operated on by M. Richard, of Paris, for uterine polypus. M. R. feared the consequence of giving chloroform, as the patient was much weakened by loss of blood per vaginam, but she required its administration. Chloroform was poured on a piece of folded linen, and held a short distance from her nose and mouth by M. Richard himself. She breathed regularly and quietly, and chloroform was twice added to the compress. The patient became, after a few minutes, very much excited, and required to be held; she was then turned to one side of the bed, and hardly had the surgeon disposed his ligature, when he was told by an assistant, to whom he had given charge of the chloroform, that the pulse had ceased. All efforts at revival were fruitless. The *post mortem* did not afford any feature of interest.—[*Medical News*.

Treatment of Psoriasis. By A. HUNTON, M.D.—Medical writers have so many different names and descriptions of squamous and papular diseases, that it is rather irksome to follow them; and the multiplicity of varieties serve only to perplex. I would call attention to one form of psoriasis, which appears to be a hereditary disease, and vulgarly called salt rheum,—as also are many other varieties of this as well as some other diseases.

If the following remedy will succeed as well in other hands as it has in mine for thirty years past, it will be found very valuable. For an external application, night and morning, in case of the above complaint, in its varieties, (which are many where writers split hairs) for chapped hands, sore lips, or for cicatrizing ulcers:

R. Mutton suet, yellow wax, pine resin, lard—of each equal quantities; melt and stir a long time, as the ingredients do not readily incorporate.

In addition to the above an internal alterative is demanded. The article I use for this purpose is one grain of corrosive sublimate dissolved in one ounce of water, and its taste covered by some saccharine substance. For an adult administer of this gtt v. morning and evening; increasing one drop every seventh day till the dose reaches to ten drops. Minute doses of mercury in some form, administered internally or applied externally, or both, constitute the most potent alterative and discutient known to me.

The above preparation applied to indolent tumors, or any tumor which it is desirable to discuss, is a judicious application. Brethren try the above remedies.—[*New Hampshire Jour. of Medicine*.

Medicine in Spain.—The *Gazette* publishes a Royal decree to the following effect: "Art 1. Every town and locality in the kingdom are in future to be provided with physicians, surgeons, and apothecaries, whose duty it will be to dispense medical aid to the indigent classes, and any other persons who may require their attendance. 2.

The existence of these physicians shall not prevent the free exercise of the medical professions in the same localities. 3. The authorities will maintain in the free exercise of their profession the persons who have been legally accredited, in virtue of the present decree and other ordinances in force. 4. The physicians, independantly of their attendance on the sick, will have to take charge of foundlings, to decide whether substitutes are fit for the military service, and to visit sick soldiers passing through their districts. They are not to absent themselves from the town in which they practice during more than twenty-four hours without the permission of the Alealde, and for a longer period without providing a substitute. Their salary is to be proportioned to the population of the district, the wealth of its inhabitants, and other local circumstances. They will be entitled to a pension after practising thirty years in the same district.”—[*Times*.]

The worst enemy of the Soldier.—Civilians think that shot kills most soldiers, but Colonel Queach, a Peninsular officer of some experience, and an authority upon the subject, having served throughout the Peninsular campaigns with the old 95th Rifles, says that 40,000 men were killed in action or died of wounds—120,000 died of disease, a great deal of which was rendered fatal by the want of proper medical attendance; whilst 120,000 more were, by disease, rendered unfit for service. What a melancholy retrospect; a numerous and well appointed medical staff is of the first importance in military operations, and would be cheap at any cost, however high or beyond the usual rate.—[*London Lancet*.]

The late Dr. Dalton.—The subscriptions towards a memorial of this highly gifted and distinguished man, the author of “Atomic Theory,” already amounts to £5,312, of which £1,175 is to be expended upon a bronze statue, to be erected in front of the Royal Infirmary, Manchester, close to those of the Duke of Wellington and Sir R. Peel, and £4,125 is to be used in founding seolarships in the New College, Manchester. Of the latter sum £2,500 will be sunk in 4 per cent. corporation bonds, to be divided into two scholarships of £50 per annum, in ehemistry, £1,250 for two mathematica! scholarships of £25 per annum, and £375 towards an annual prize of £15 for natural history.—[*Ibid*.]

Venereal Ulcers.—The use of iodide of zine in venereal affections is highly recommended by Dr. Sewell, of Canada, in the *Montreal Medical Chronicle*. In venereal ulcerations of the throat and nose, it was found effectual, after the disease had resisted the use of the acid pernitrate of mercury. To apply it, twist a little cotton wool round the point of a wooden skewer, and having dipped it in the caustic, apply it to the ulcer. One application usually suffices to destroy the morbid action, and is to be followed up with the metallie washes for the throat, and dilute citrine ointment for the nose.—[*Virginia M. and S. Jour.*]

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ORIGINAL AND ECLECTIC.

ARTICLE XXIV.

*Cases from the Note-Book of W. H. ROBERT, M. D., of Orion,
Pike county, Alabama.*

CANCER OF THE PENIS.—The subject of the present sketch was a man aged 54 years, who had been very intemperate during the whole course of his life, besides being a most excessive libertine: in fact, his whole desire to live seemed to be for the gratification of his animal passions. One of the consequences of his loose life, was a phimosed prepuce; and, in September, 1849, he sent for me to circumcise him. At the time appointed, I repaired to his house, and found the prepuce in a state of phimosis, thickened and firm to the feel; I could also detect, by a close examination, an ulcer within the prepuce, the nature of which I could not ascertain, because of the unyielding nature of the prepuce. My patient's heart failed, and he refused to submit to the operation. After this, although I frequently saw him, I did not examine his penis until February 20, 1852, when he sent for me again to operate on him. The ulcer had made its appearance externally, and the prepuce had a hard and scirrhus feel. I operated by making a longitudinal incision before and behind, and taking off one side of the prepuce at a time. The ulcer had extended to the glans penis on the left side, and was about the size of a thumb-nail. The cut edges

healed very well in a couple of weeks, but the ulcer on the glans gradually extended, in spite of my efforts to prevent it—I was satisfied that the ulcer was cancerous. The rest of the glans gradually became hard and knotty to the feel. I proposed, as a last resort, to amputate the penis beyond the diseased part, and requested a consultation. Dr. Haygood, of Montgomery county, was called in, who fully concurred with me as to the nature of the disease and the necessity for the amputation. To this the old man refused to submit, and passed out of our hands. He then put himself under the care of a “*conjure cancer Doctor.*”

I saw him occasionally in passing, and perceived that the ulcer was extending its ravages toward the body. I ceased to see him from September, of the same year, until about the middle of January, 1853. His condition was now as follows:—The penis was entirely destroyed, up to the arch of the pubis; a large bubo had broken in the left groin, and produced a cavity that could conveniently hide a turkey's egg, and in the right groin there was another bubo nearly ready to burst. The scrotum was about the size of the head of a child a year old, hard and solid to the feel. On the 22d of February he died, just about one year after I excised the prepuce.

In all probability he might have lived a longer time if he had submitted to the amputation of his penis. When the operation was proposed to him, as a last resort, he said he would die before he would submit to it—and sure enough he did; but not before he lost his penis.

RETROVERSION OF THE UTERUS, WITH PARALYSIS OF THE LOWER EXTREMITIES.—August 5th, 1852. I was called to-day to see Mrs. S., a lady aged about 45: she had enjoyed good health until about two years past, when she took a cough, which has been gradually wearing her down; she is the mother of six or eight children; has been confined to her bed only four days. I found her in the following condition:—She was sitting up in her bed, and propped up with pillows; she said that she could not lie down, for every attempt to do so would cause violent pain in the back, hips, and pelvis generally. I was given to understand that there was some deranged condition of the uterus.

After much persuasion, I succeeded in inducing her to lie upon her back.

By a very careful digital examination per vaginam, I detected the most perfectly marked case of Retroversion of the Uterus I have ever seen. The fundus of the uterus could be plainly felt in the hollow of the sacrum, and the os tinæ was resting against the pubes. She complained of a great deal of difficulty in evacuating both rectum and bladder. The difficulty in evacuating the bladder had existed for some months. With one index finger in the rectum and the other in the vagina, I gradually returned the uterus to its proper position. She experienced instant relief from her more distressing pains. I advised the recumbent posture, (which now could be borne without suffering. After waiting an hour, I questioned her as to her feelings: she replied, that she was free from all acute pain. There was some soreness of the back and hips.

She was very much troubled with a cough. The upper part of the right side of the chest presented a very dull sound upon percussion; I suspected the existence of a cavity in the lung; but was not expert enough to detect any. The matter expectorated was a mixture of blood and pus.

She said the flesh on her legs felt dead. As there appeared no urgent necessity, I simply prescribed rest and an opiate, and promised to see her again on the 7th inst.

7th inst. I was sent for in great haste, before day this morning, to see Mrs. S. On my arrival, I found her suffering very much from retention of urine. Not only was this the case, but I found the lower extremities completely paralysed, as well as the bladder; the rectum would empty itself, but she said she was not aware of the act of defecation. The uterus occupied its normal position. The opiates prescribed on the evening of the 5th procured no rest; I drew off the urine by catheterism, and prescribed $\frac{1}{8}$ gr. strychnine every six hours, and frictions to the spine and posterior parts of the thighs with stimulating liniment.

8th. Patient very much as yesterday; has passed no urine since yesterday morning; some slight motion in knees. Used the catheter again, and drew away 35 or 40 ounces of pale-colored urine; ordered muriated tincture of iron 15 drops, three

times a day, in connexion with the strychnine, as before; friction to the back and thighs continued; to keep the bowels open.

10th. Patient but slightly improved since last report—there appears to be a little more power to move the knee. She is still unable to evacuate the bladder, without the aid of the catheter; still complains of pain in the back and hips, (which she has done all along); bowels open enough; appetite good; cough and expectoration about the same. I applied a large blister over the sacrum and lumbar vertebræ, instructed the husband how to use the catheter, and ordered a dose of castor oil to be given in the morning.

12th. The oil had operated well; the husband had to introduce the catheter once or twice every twenty-four hours—I directed the blister to be dressed with strychnine ointment. In every respect, she appeared to be the same as at last report.

One fact I forgot to mention in my previous reports, and that was with regard to the pulse. At each of my visits I found it perfectly natural in frequency, but weak and small.

In addition to the strychnine and tinct. iron, I gave vegetable tonics, and ordered the catheter to be used as often as necessary; also, the use of enematas, if the bowels should become costive.

I saw her occasionally; there was no improvement. My treatment was persevered in faithfully. I used every means in my power to relieve the paralysis, but failed. She gradually sunk lower, and died on Oct. 1st, 1852.

My principal object in the report of this case, is to notice the very unusual complication of paralysis with a mal-position of the uterus. That the woman had phthisis is true, and that this seemed to hasten a fatal termination, I believe to be the case; yet the point of interest was the occurrence of the paralysis at that particular time. She had had nothing like apoplexy, and but a few hours before I paid my first visit she had stood upon her feet. She was setting up when I first saw her, and said she could not lie down. After a good deal of persuasion, she was prevailed upon (*not forced*) to lie down—and by as gentle means as the nature of the case would admit, the uterus was examined and replaced. There was no more difficulty in this, than is in ordinary cases; yet after this she never was able to move her

legs, or but very slightly. When I became aware of the existence of the paralysis, on my second visit, I suspected the existence of a tumour pressing upon the sciatic nerves; but a careful examination failed to detect any.

No post-mortem examination was allowed, and consequently I could not ascertain the cause of the paralysis. The uterus remained in its natural position the last time I examined her.

CASE OF OCCLUSION OF THE SUPERIOR PORTION OF THE RECTUM.—The subject of the present case was a lady, aged about 24 years; been married 16 months—had one child, about four months old.

For ten months previous to her death, she had suffered with repeated attacks of colic and costive bowels; which was generally relieved by a dose of castor oil. The attacks became more frequent and more obstinate, until March 1st, 1853, when the fatal attack set in. This time, her accustomed dose of oil failed to relieve her, and enemata were used without any success. On the second day of the attack (March 27th) my friend Dr. M. A. Martin, of China Grove, Pike county, was called to the case: all his most strenuous efforts to open the bowels were unavailing. I was called to see the case (March 3rd) in consultation, and found it presenting the following appearance:—Excessive restlessness, with periods of repose which generally lasted about 15 minutes—then would commence again the restlessness, with loud complaints of pain which was referred to the right hypogastric region. She complained very much of pain when pressure was made on any part from the liver to the right iliac region; she felt no pain in the left iliac, though she had done so when first taken. She vomited every thing taken into the stomach. I gave it as my opinion that a stricture existed in some part of the bowel which had been gradually closing until it had produced total occlusion. She sometimes retained articles of medicine one and two hours; her tongue was moist, slightly furred and a little red at the tip. There was very little typhilitis; her pulse was firm and 100 to the minute. She had been freely blistered over the abdomen. I advised large and repeated doses of calomel—say 100 grains at once. The reason for such doses was obvious: because more easily retained,

and if retained, would be more likely to operate without further assistance. Every dose was vomited. Croton oil could be retained only a short time. This state of things continued for three days after my first visit—during which time the pain in the right hypogastric region increased, and we suspected that the peritoneal covering of the liver was becoming involved. Cups to this part gave temporary relief. We made repeated attempts to introduce a tube high up the rectum, so as to facilitate the use of injections; but without success. She continued to grow worse, and died on the 8th of March in convulsions.

A post-mortem examination was allowed six hours after death. The first thing which attracted attention after opening the abdomen was the intensely inflamed cæcum and colon. At that point where the cæcum and colon passes under the edge of the liver, the inflammation was so intense as to involve all the coats of the intestine and the peritoneal covering of the liver. The liver and intestine had become agglutinated. We took out all that portion of the large intestine which was inflamed, to examine it more carefully. On opening the bowel, the mucous coat was almost black, and each coat was very dark until they passed to the peritoneum, which was of mahogany colour. One small spot, about the size of a twenty-five cent piece, was very little removed from sphacelus. The mucous, cellular and muscular coats were very much softened and the peritoneal covering of the bowel at this point was agglutinated to the corresponding covering of the liver. The colon, as it passed on to become flexed, was more healthy, and at the termination of the sigmoid flexure, and commencement of the rectum, we found the strictured portion of the bowel. This had evidently been caused by a deep seated inflammation of the tissues of the section; producing an extensive thickening of the mucous membrane, in a circular direction. There was no ulceration of the mucous membrane, but at one point an ulcer appeared to be about to burst in the peritoneum. At this point the bowel was very easily torn in the examination. The bowel was as firmly contracted, circularly, as if a cord had been tied around it. When the strictured portion of the bowel was taken out, we found the contraction so perfect that water would not pass through it.

OPERATION UPON THE HAND TO RELIEVE A CONTRACTION CAUSED BY A BURN.—Gabriel, a little negro boy, aged 4 years, was presented to me, by his master, Oct. 19th, 1851, to devise some operation to relieve a very bad deformity of the hand, caused by a burn, when he was about eight months old. The left hand was the one affected, and the contraction of the burn was so great as to draw the hand backwards and confine it closely to the arm. The burn extended all around the arm, so as to make it impossible to get any sound skin on that arm near enough to answer my purpose.

My plan of operation was that adopted by Professor Mutter, of Philadelphia, in cases of a similar nature—viz., to divide the contracted skin, and, if necessary, to dissect away a section across the old cicatrix, and fill up the space with sound skin.

In my case, I divided the contracted skin which confined the hand down, and found that motion of the wrist-joint was good, but a little stiff. The whole of the metacarpal bones were confined, and when dissected up there was about three inches in length and about one and a half in breadth of denuded surface exposed. I drew upon the right arm for skin to supply at least a part of the deficiency. I dissected from the right forearm a flap about one and a half inches long by one inch wide, leaving one edge attached to keep up the vitality, turned the skin up and confined the free edges with sutures across the wrist of the left hand, then, by splints and bandages, firmly secured the forearm of the right side to the back of the left wrist.

At the end of eight days, I carefully examined the condition of the parts, and found the patch adhering. I then carefully separated the right arm from the left. The skin adhered firmly, and the rest of the wound healed up by granulations. The flexibility of the hand remained good, and at this date (July 1, 1854) the left hand is almost as good as the right.

ARTICLE XXV.

Observations of Epidemic Dysentery. By J. J. M. Goss, M.D., of Jackson county, Ga.

I see it stated in the May No. of this Journal, that Dr. Wooten wishes to collect all the facts relating to Dysentery

that can be obtained from different localities. As I have practiced in several sections of Georgia, and have treated dysentery under a variety of types, I will contribute my mite of experience. The first of my practice was in the year 1842, when I saw dysentery prevail in the most violent inflammatory form, in Harris, Talbot and Muscogee counties, carrying off a number of both children and adults. The attacks, generally, were sudden and violent, commencing with high irritability of the stomach and bowels. The tormina and tenesmus were very great, and if not checked by opiates, warm fomentations to the bowels, or warm hip-baths, soon terminated in great prostration of all the vital powers, and death. The diseases most frequent in that section, then, were remittent, scarlet, typhoid and typhus fevers, in the spring and summer months; and in the winter and early in the spring, pneumonia, pleurisy, bronchitis, and influenza.

In 1843, I practiced in the upper edge of Harris and lower edge of Troup counties: there I met the disease in its most violent form again, spreading terror and dismay wherever it prevailed. I now found some change in its peculiarities, owing to a change in locality and atmospheric vicissitudes. The year before, we had a very wet summer, but very dry fall. This year, 1843, we had a very rainy winter, with a moderately rainy spring and very wet, warm summer. The disease now seemed more aggravated in its symptoms, commencing with nausea and frequent bilious vomiting; tormina and tenesmus very great; stools at first bloody mucus mixed with fecal matter, soon changing to bloody mucus, and sometimes bloody serum without fæces. Great prostration soon followed, and if not met by prompt and efficient treatment, proved fatal in a few hours or days. The treatment I found most successful in this epidemic, was, at the onset, calomel and opium together, to remove offensive matters from the alimentary canal, and quiet nervous irritability: this, not unfrequently, cut short the disease; but if it failed, I generally kept up daily action on the bowels with rhubarb or castor oil, and lulled the nervous system with injections of starch and morphia, or opiates by the mouth, if the stomach would retain them. This course failing, which was sometimes the case, I then resorted to astringents by the

stomach and rectum, combined with morphia. The subacute or chronic stage of the disease, characterized by less heat of the surface, diarrhea and great prostration of the whole system, was very difficult to arrest. The diseases most prevalent, then, were remittent, intermittent and congestive fever; during the summer and fall and the winter following, we had pneumonia, which appeared to assume a remittent type, and was much benefited by the addition of quinine to the common treatment.

During the next two years I practiced in Hamilton, Harris county. There were not many cases under my observation, nor was the disease characterized by any great fatality or peculiarity. In 1846, I practiced on the line of Oglethorpe and Madison counties, where I treated a large number of cases; but they were much like those of former years. In '47 and '48, I again met the disease as an epidemic of great severity, as regards frequency and fatality: there were, those years, no unusual atmospherical vicissitudes; the summers were seasonable and warm; winters moderate; the spring of '47 was very cold and wet, and this year, the disease was most severe. The above-mentioned treatment was the one I now relied on, and was generally successful, when resorted to early in the disease; but if delayed, the disease was very fatal, particularly among children. The diseases that prevailed here these two years, were remittent, intermittent, and typhus fevers, in the summer and fall, and pneumonia, extensively and severely, in the winter, and early in the spring.

I now changed my location, left Oglethorpe, and settled on the corner of Walton and Gwinnett counties. Here I met the disease under its ordinary forms, until 1852, when, after a very cold and pretty dry winter, warm, wet spring, and seasonable, but not very wet summer, we had inflammatory dysentery, in all its malignancy, to such an extent that very few persons, in some localities, escaped it. It was now attended with high febrile excitement, excessive vomiting, headache, and sometimes delirium; constant tormina and tenesmus; very frequent stools of blood and mucus, or bloody serum. This epidemic was unusually fatal for this climate; it proved fatal in a few days, if not arrested. The treatment I varied; where there was high arterial excitement, I resorted to venesection, with

marked effect; for the purpose of quieting the stomach and bowels, I resorted to calomel and opium together. I gave the opium, or some of its preparations, according to the case, in doses sufficient to produce its specific effects, and the calomel in doses sufficient to remove from the bowels all offending matters at once; after this, I gave some of the preparations of opium to keep the nervous system quieted and mitigate pain. I also used warm hip-baths, warm poultices, and exciting embrocations of turpentine, camphor, aqua ammonia, &c. I never suffered the bowels to remain locked up with the opiates; but, with oil, blue mass, or rhubarb, I kept up daily evacuations of the small intestines, until the stools became mixed with consistent fecal matter. If there was great tenderness of the bowels and very obstinate tormina and tenesmus, after the above remedies had been previously used, I usually applied a large blister, and let it remain on four or six hours, and gave injections of starch and morphia, which I found to be preferable to any other preparation of opium, and by injections, the best way of administration. When the disease assumed a chronic form, characterized by prostration, cold extremities, coolness of the surface, frequent thin or watery evacuations, I usually united to the morphia, the nitrate of silver, and gave a little old brandy, or wine whey, to support the system. In regard to diet, I enjoined the utmost strictness, in quantity and kind, during the continuance of the attack and during convalescence; for I found the relapses very frequent, from imprudent indulgence in improper kinds and quantities of food. I generally found most subject to it those who were enfeebled by dissipation and indolence, or those who lived grossly, &c. Among children, I found those who were teething, or wormy, most subject to dysentery.

ARTICLE XXVI.

Two cases of Slow Action of the Heart in Fever. By JAMES Y. CARITHERS, M. D., of Hendricksville, Ala.

October 1st, 1853, was called to see Mr. S., aged 20, who was taken with slight chill, with pain in head, back and extremities; skin hot and dry; tongue covered with a white fur,

attended with nausea and vomiting; pulse 90. Ordered 20 grs. Ipecacuanha, which caused free vomiting to take place, to be followed at night with blue pill: on the following morning to take five doses of sulph. quinine, 3 grs. each. At 4 o'clock, P. M., had a light chill.

3rd. Slight fever, with great thirst—to have oil to act on his bowels; to take next day three doses sulph. quinine, 4 grs. each, and blue pill at night.

4th. No chill since last call; pulse 75—to take 1 gr. sulph. quinine every two hours during the day, and a blue pill at night.

On the 10th he relapsed—the skin became hot, and the pulse rose to 94; on the 12th, the pulse fell to 70, and continued to decline until the 17th, when it was down to 42 or 43, although French brandy was given freely. 18th. Pulse 40; has taken 10 ounces of brandy. 19th. Pulse 40; brandy continued. 20th. Pulse 40; ordered brandy with iron. 21st. Appetite good, and feels well; treatment the same. 22d. Brandy increased to 12 ounces. 23d. Pulse 50; spirits improved. The pulse continued to rise until the 26th, when it was 84, and 84 when the brandy was omitted, and the iron continued. I saw him again on the 30th, and found him apparently well with his pulse 64.

CASE 2. Mr. A., aged about 34, was taken, Nov. 10th, 1853, with pain in the head, back and extremities: shin hot and dry; tongue moist, with a white fur; pulse 86. Ordered Ipecac. 25 grs., and five hours after to take 3 blue pills. 12th. To take quinine. 4 o'clock, P. M., had a heavy chill. 13th. To take 4 grs. quinine every hour until he takes 16 grs., with 3 grs. opii. 14th. Slight fever—to take castor oil. 15th. No chill to day. He continued to improve until the 22d, when he was caught in a shower of rain, and had a light chill and slight fever; pulse 74. 23d. Pulse 60. On the 24th, it was down to 52, when French brandy was resorted to, 6 ounces. 25th. Pulse 46; stimulants increased to 8 ounces, with iron. 26th. No change in pulse. 27th. Brandy, 10 ounces. 28th. Pulse 84; appetite good to-day. 29th. Pulse 68; slight fever and headache—ordered castor oil to act on bowels. 30th. Pulse 56; brandy and iron continued. Dec. 2d. Pulse 56; his spirits good to-day, and

says the brandy is the most palatable medicine he has ever taken. Dec. 4th. Pulse 60. He now considers himself well.

We are at a loss to account for the diminution of the heart's action in these cases—the number of beats per minute having ranged from 40 to 50 without any evident cause.

TRANSLATIONS FOR THIS JOURNAL, FROM FRENCH PERIODICALS.

Ergot: Circumstances which contra-indicate its use during Labor. By M. PAUL DUBOIS.

Ergot, besides its well known hemostatic properties, is useful when, from inertia, the uterine contractions are insufficient to complete delivery. It is, however, to be regretted that this valuable remedy is so often improperly used. We have frequently known it given when it was entirely unavailing, because unsuited to the case. This abuse, and the sad effects consequent upon it, have contributed very much to discredit ergot in the minds of many practitioners. We should, nevertheless, not be deprived of so precious an agent from the mere fact that it has been injudiciously administered. We should rather endeavor to ascertain the circumstances under which it may be advantageously prescribed, and distinguish these from the contra-indications to its use. The circumstances under which the uterine contractions may be impaired without calling for the use of ergot are sufficiently numerous to merit attention. The following are some of the most common:

1st. Debility dependent upon a natural state, or induced by previous disease. This requires tonics, broth, wine, &c., for the purpose of improving the strength of the patient during labor.

2d. Extreme distention of the uterus from an excessive quantity of liquor amnii, which induces incomplete paralysis. The uterine fibres being inordinately distended, the membranes should be punctured whenever the os tinæ is one-fourth dilated, or about the size of a half-dollar.

3d. Congestion of the face, attended with impaired contractions from plethora. The patient should then be bled.

4th. Mental disturbance from whatever cause, sometimes from the presence of particular persons in the chamber, may suspend the uterine contractions. The woman must be quieted and the causes of annoyance removed.

5th. Great elevation of temperature in the apartment may lessen the contractions by the cerebral congestion it induces. The room should, in such cases, be well ventilated and cooled if possible.

6th. Pain, other than that of labor. Retention of urine, may be so painful as to impair the contractions; catheterism should then be practiced. Very great pain in the loins may likewise affect them, in which case we should apply the forceps if labor is sufficiently advanced—if not, wait patiently. The same may be said with regard to the headache which sometimes attends each abdominal contraction.

7th. The premature discharge of the waters makes labor slow, because, like all hollow organs, the uterus contracts most forcibly upon unyielding contents, and that when the membranes are ruptured the descent of the fetus at each contraction lessens its force.

8th. The uterine contractility may become exhausted by the tardy rupture of the membranes in consequence of the firmness of these; rupture them.—Rigidity of the os tincæ from phlogosis may do the same; resort to belladonna or to general bleeding.—If the cause be unyielding induration of the tissues of the cervix uteri, of which we have recently seen a case, the knife should relieve the resistance.

9th. There may be posterior obliquity of the cervix which will lessen the force of the contractions. If the os does not dilate of itself (and cannot be rectified by the finger—Ed.) we may have to divide its anterior lip with a probe-pointed bistoury.

Epilepsy treated with Hydrocyanate of Iron.

Dr. Jansion, of Bruyere (Tarn) published in the August No. for 1841 of the "*Journal des Connaissances*," a paper containing an account of several cases of Epilepsy cured with hydrocyanate of iron. The first of those cases was dated as far back as 1827. M. Fabre has also just published in the "*Revue Méd.*

ico-Chirurgicale" similar facts derived from the practice of M. Roux de Brignolles, Professor in the Medical School of Montpellier. The first of these cases goes back to 1829. M. Roux's case was that of a general, who having in 1814 retired from the army, and changed from an active to a sedentary life, experienced various impairments of health, the most serious of which consisted of epileptic attacks, which were rare at first, but which subsequently recurred as often as three times a day. The patient felt the premonitory *aura epileptica* ascending from the lower extremities to his head. The general would stagger, sometimes with loss of consciousness, but most frequently with mere vertigo. In 1829 he was subjected to antiphlogistic treatment, which only aggravated the case. It was then that M. Roux prescribed for him the Hydrocyanate of Iron. Pills containing $\frac{1}{2}$ grain of this preparation and 1 grain Pulv. Valerian were ordered night and morning. The daily number of pills was gradually carried up to 16; at the end of three months the general was free of attacks—and he has had none since, although 24 years have elapsed.

M. Roux reports six cases cured by this remedy—one of which we have just related; the remainder will be briefly noticed. One of the most remarkable was that of a country lad 20 years of age, who upon being greatly frightened, had a complete attack of epilepsy; fell into convulsions, foamed at the mouth, urinated involuntarily, with prolonged unconsciousness. These attacks recurred frequently during four years. The hydrocyanate was administered, at first with pulv. valerian, without effect. The disease, however, yielded very soon upon the use of the Hydrocyanate alone, in doses of a grain (5 centigr.), and gradually disappeared entirely. The treatment was continued 8 months, and 20 years have now elapsed without a return of the disease.

An epileptic patient, aged 16 years, whose case was recent, but the paroxysms frequent and violent, was completely cured in six months by the use of the hydrocyanate and valerian. A girl of sixteen, who menstruated badly and was affected with complete epilepsy, was also restored to health by its use 8 months. The other 3 cases were equally successful. The quantity, in pills, was gradually increased from 1 to 16 grains per day.

Sciatica treated by medicated issues.

M. Trousseau observes that morphia applied to blistered surfaces answers very well; but that this plan is both painful and expensive. He has therefore adopted the following method of introducing remedial agents within the tissues. The patient, lying upon his abdomen, a crucial incision is made over the sciatic notch with a bistouri, and a medicated pea is fixed in the centre; thus answering the double purpose of an issue and of a local anti-neuralgic application. This is M. Trousseau's formula :

R. Opii.

Ext. Belladon., àà—2 gram. (30 grains,)

Pulv: Guaiac: Res: et mucilag.—q. s.

M. pt. Pil. No. xx.

Each of these pills will therefore contain 3 grs. of active matter. They should be dried by gentle heat, and will, in consequence of the guaiacum become very hard. They ought not to be used the first day. The incision having been made, force down into the centre a *common pea*, which has the advantage of a fine polish, is unirritating, and will by swelling enlarge the cavity for the reception of the medicated pill. On the second day, one of the pills is to be introduced with two common peas and the whole covered with lint and adhesive plaster. If, on the third day, the patient has not been too much narcotized, two pills may be introduced—and thus the number increased to 3 or 4, according to the necessities of the case. In a week the cure will generally be nearly completed. As this disease is liable to return, M. Trousseau advises to keep up the suppuration of the issue for two or three weeks after the cessation of pain. We thus secure a good revulsive and at the same time keep open the door for the introduction of narcotics, if they again become necessary.

Perchloride of Iron as a Hemostatic.

M. Moissenet has used a solution of this preparation, more or less strong, at the Salpetriere, in cancerous affections accompanied by hemorrhage, instead of cauterization and tamponing. As it has as yet been tried only in a few cases, its beneficial effects cannot be positively asserted; but in one case of cancerous breast, and four cases of uterine cancer, it has been of great utility in arresting the hemorrhage and prolonging life.

In cancers situated externally, within reach of the hand, M. Moissenet passes a small brush wet with the solution over the seat of the hemorrhage for two or three minutes. In the deeper parts, he inserts small pieces of lint, having first wet them with the solution. He washes the fungous parts for some days with a solution of 30 grammes of the perchloride and 250 grammes of water, (or 1 part to about $8\frac{1}{2}$ water). This solution is used in injections for uterine cancer.

Solidification of Cod-liver Oil.

M. S. Martin, apothecary, of Paris, proposes the following process for the solidification of cod-liver oil, by which its administration may be rendered much less objectionable.

Take of Cod-liver oil 125 parts—Spermæti 23 parts in summer or 20 parts in winter. Mix, and heat in a closed vessel over a sand-bath—then pour it into a large-mouthed bottle and allow it to get cold without being agitated. The remedy may be made aromatic by the addition of some essential oil. Cod-liver oil thus prepared resembles jelly; it may be taken rolled up in bread moistened with sweetened water, or covered with pulverized gum, liquorice or starch.

On Irritability of the Bladder. By HENRY THOMPSON, Esq.,
F. R. C. S., M. B. Honorary Surgeon to the Marylebone
Infirmary.

The phrase, irritability of the bladder, is a term which has long been employed both in and out of the profession, and which has become popular, rather on account of a certain convenient comprehensiveness and indefiniteness of meaning of which it is susceptible, than for any value which can be attributed to it as an explicit or perspicuous expression.

The usage of it, which is commonly adopted, comprehends a very wide and varied extent of signification, presenting at least two very distinct and different ideas; occasionally one of these only is implied, although much more generally the term is employed in a manner which renders it impossible to say which of the two is intended, or which conveys a confused notion, involving a joint consideration of both.

In one of these senses, irritability of the bladder denotes nothing more than the phenomenon of unnaturally frequent

micturition, and it is thus employed in describing one of the prominent symptoms of calculus or urethral stricture. In the other, it is used for the purpose of designating some affection of the bladder assumed to be present as the occasion of that symptom, especially when the cause does not appear to the inquirer to be very obvious or explicable.

Now, nothing can be more objectionable than the unguarded use of a term to which are attributed two such very different significations. Neither can it be otherwise than mischievous to employ it in the very loose and uncertain manner of which the latter is an example.

The simple condition described by the term in the sense which was first named is one of very frequent occurrence among individuals of both sexes, and it is always attended with much annoyance, and often with severe distress to the sufferer. It can rarely or never be overlooked by the patient, and can scarcely fail to be recognised by the surgeon, while the right interpretation of it is often of the greatest importance to both. It is a condition which constitutes the whole of the objective as well as the subjective signs in some diseases of the viscus in question; while in many it is the most distressing to the patient, and the most wearing to the constitution of all his symptoms.

It is not surprising, then, that it should, not only by the patient, but even by the medical practitioner, come to be regarded, not merely as a sign or symptom of some morbid state, the seat of which may in reality be very remote, but as the manifestation of a disease localized in the bladder itself—a state which, in the absence of the signs of inflammation there, comes to be denoted by a term which I think it will appear can be rightly applied only to the symptom in question. Hence we often find “irritable bladder” prescribed for, apart from any distinct views of its cause, and even without much investigation thereof—at all events with so much only as shall exclude its better known and more generally recognized causes, such as cystitis, prostatitis, urethritis, and stricture of the urethra; and if these are absent, there appears to be a tendency to refer the symptom to some ideal condition of the bladder assumed to be present, which it saves our trouble, and shields the imperfection of our knowledge, to express by this term of irritable bladder. Hence we find the subject treated somewhat in this manner by authors on Diseases of the Bladder. A chapter on “Irritability,” as a disease, usually follows or precedes the sections which are devoted to the consideration of those morbid states which we understand by the terms acute and chronic inflammation.

Thus, Dr. Gross, of Louisville, in his large treatise on “Diseases of the Urinary Bladder,” &c., after discussing the

acute and chronic inflammations, classifies "irritability" under the "nervous affections of the bladder," and commences the chapter with these words: "The characteristic symptom of this disease is frequent micturition."* Mr. Coulson, in his well-known and useful work on the same subject, remarks that "this term is usually employed to denote any affection of the bladder attended with frequent desire to void the urine. I wish, however, to express by it a frequent and often irresistible desire to micturate, not arising from inflammation, nor from any organic affection of the bladder or prostate gland, and sometimes, but not always, attended with pain. The frequent desire to micturate is the chief symptom of this complaint."† Sir Benjamin Brodie appears carefully to guard against the source of error alluded to above, commencing an exceedingly short paragraph upon the subject, in his valuable work on the "Urinary Organs," with these words: "In the greater number of cases of disease of the bladder the most marked symptom under which the patient labours is a too frequent inclination to void the urine. The bladder is irritable; and those who have not combined with the observation of symptoms the study of morbid anatomy, are apt to confound with each other diseases which are essentially different, under the general appellation of irritable bladder."‡

Now, in harmony with the spirit of the last quotation, I venture to suggest that we shall be more likely to advance the true pathology of the important organ under consideration if we will consent to exclude from the term "irritable bladder" any kind of nosological import, to permit it to convey to the mind no suggestion in the light of a disease, but to limit its meaning to that which in truth is all that it possesses—viz., the expressing a symptom, and a symptom only, of which it is the province of the surgeon to determine, if possible, the true cause; and if it should appear that the seat of the complaint, the cause of the frequent micturition, is generally not in the bladder at all, but in some adjacent or remote part of the body, we shall, I think, at the same time, see the propriety of rejecting that usage of the term which involves a pathological sense in connexion with the bladder, and limited to that organ alone. At present its employment in the signification of a disease tends greatly to prevent the formation of a true diagnosis, inasmuch as a consent to accept the term in any given case satisfies some minds, and checks further inquiry, so that the common error of substituting an unmeaning name for a thing of reality is apt

* Page 192.

† Diseases of Bladder and Prostate Gland, fourth edition, p. 84.

‡ Lectures on Diseases of the Urinary Organs. Fourth edition, p. 90.

to be committed. On the other hand, its employment as the designation of a symptom only will stimulate us in the attempt to elicit from nature the real seat of the morbid action.

On these grounds, therefore, I propose to regard this common and troublesome cause of complaint on the part of the patient, this *symptom* of frequent micturition, as a matter for inquiry, in relation chiefly to its etiology, in the present and two or three succeeding papers; and in order to prevent misunderstanding, I shall propose to define irritability of bladder to be a condition in which expulsive efforts are made by the organ with unnatural frequency, whether contents are present or not, whatever may be the cause which gives rise to the contractions. This condition is found in practice to manifest very widely-differing degrees of severity, and to be attended with some concomitant circumstances of a varied character. Generally speaking, irritability is denoted when a constant or almost constant desire to pass urine exists. Of this sensation, recurring exacerbations usually take place with more or less frequency. These may be wholly irresistible, compelling the patient to yield to overwhelming efforts at expulsion, in which he passes a few drops of urine, or perhaps none at all, for the bladder may be perfectly empty. So far from relieving the sufferer, the effort of contraction is often productive of great agony, and its recurrence is dreaded. In other cases the desire is by no means constant, but is only felt at intervals of some minutes, or it may be of half an hour or an hour, and then great pain is experienced unless the wish be gratified. To all those cases which exhibit much involuntary paroxysmal effort the term spasm is commonly applied.

The usual number of times which a healthy man requires to empty the bladder is from three to five in the twenty-four hours, although perhaps a greater frequency may be occasionally associated with some peculiar idiosyncrasy or particular state of the system, which it would not be correct to characterize as morbid. Any marked deviation from this habit in the direction of frequency becomes a symptom conveniently expressed by the term "irritable bladder."

One of the most potent causes of irritability of the bladder is inflammation, generally chronic, rarely acute, affecting most commonly its mucous lining only, at all events at the outset of an attack. Any degree of inflammation in this coat gives rise to irritability; the extremities of the sensory nerves distributed to it forming afferent communications with the neighboring centres, from which motor impulses are propagated to the muscular coat of the viscus, and to the auxiliary muscles employed in the act of micturition. Excito-motory acts, however,

are produced in a great variety of ways. Sources of irritation are to be found, not only in the organ itself, but at a distance from it. On taking a close survey of these, as far as my means of observation have enabled me, I beg leave to suggest the following classification of causes of irritability of the bladder, and by means of it to attempt an arrangement which shall be natural and comprehensive, and practically useful in assisting our diagnosis in relation to this important symptom. We shall do well, however, to bear in mind that its object is to facilitate the process and to improve the method of diagnosis, and that it should be regarded merely as a means to this end—a means necessarily imperfect, and in the details of its arrangement probably open to some objections, on account of the varied points of view from which many of the causes themselves may be regarded by different minds.

Irritability of the bladder, regarded as a symptom only, may be considered as resulting from various causes, which are classified under the following heads:—

- A.—Certain conditions of the bladder itself.
- B.—Abnormal character of its contents.
- C.—Some abnormal and acquired conditions of adjacent or allied viscera and other parts, the disease being of a local character.
- D.—Certain derangements of the assimilating and nervous systems.

A.—Certain Conditions of the Bladder itself.

1. Inflammation, acute.
“ chronic or subacute.
2. Cystorrhœa or congestive catarrh, from atony and relaxation of the capillaries of the mucous membrane, and usually a sequence of inflammation.
3. Abrasions and ulcerations of the mucous membrane.
4. Abscesses in the walls of the bladder.
5. Thickening of all the structures of the bladder from inflammatory deposit, so that the capability of the organ for contraction and dilatation is much impaired. The capacity being thus considerably diminished in some cases, a frequent desire to pass urine exists.
6. Gouty and rheumatic affections of the bladder, when, as is sometimes the case, these are the only local manifestations of constitutional derangement. The rheumatic affection appearing to be occasionally a sequence of gonorrhœa, and probably belonging to the same category as gonorrhœal affections of the joints.
7. Increased or modified sensibility, usually of the neck of the bladder, no inflammation being present. Severe pain in the region of the bladder (neuralgia) from the same cause.
8. Tumours: simple—malignant.

B.—Abnormal Character of its Contents.

1. Urine containing an unusual quantity of acid or alkali, especially in Oxaluria and Phosphuria, also when there is an excess of uric acid; often associated with some form of chronic dyspepsia. Urine passed in an unusually large quantity.
2. Urine containing an admixture of certain drugs; as cantharides, the turpentine, &c.
3. Foreign bodies in the bladder, giving rise to spasmodic contractions of its muscular parietes; as calculi, not only when large, but sometimes when of small size, and termed gravel; coagulated blood, and lymph.

C.—Some Abnormal and Acquired Conditions of adjacent or allied Viscera and other parts, the disease being of a local character.

1. Obstructions in the urethra.
 - “ from organic stricture.
 - “ “ growths in the urethral canal.
 - “ “ prostatic enlargement, whether from senile degeneration with hypertrophy, or other tumour.
2. Malformations of the prepuce, when its orifice is small, or when it is long and narrow.
3. Urethritis, balanitis, and inflammatory phymosis.
4. Prostatitis, acute and chronic.
5. Vaginitis.
6. Painful vascular tumour of urethra meatus in the female.
7. Perinæal, ischio-rectal, or other adjacent abscess.
8. Hæmorrhoids.
9. Fissure of the anus, prolapsus recti, and other organic diseases of the bowel.
10. Prurigo about anus.
11. Scybala in the intestines.
12. Intestinal worms, particularly ascarides.
13. Organic diseases of the kidney; the irritability not being caused by the unhealthy character of urine secreted (*Division B*), but by means of some other medium of relationship between the kidney and bladder.
14. Impregnated uterus.
15. Diseases of the uterus and appendages. Misplacement of uterus, as prolapse, retroversion, &c.

D.—Certain Derangements of the Assimilating and Nervous Systems.

1. The gouty and rheumatic diathesis, no evidence of distinct local implication existing.
2. Hysteria, “spinal irritation,” as associated with irregularities of the menstrual function.
3. Irritable or mobile conditions of the nervous system; in elderly patients, probably connected with organic cerebral changes; in middle age and youth generally resulting from anæmia and spanæmia, caused perhaps not unfrequently by venereal excess.

es; in childhood and infancy, a naturally active state, in which dentition and other remote sources of irritation are exciting causes.

4. Diseases and injuries of the brain and spinal cord.

5. Mental emotions. Anxiety, fear, &c.

Frequent micturition may be a habit due entirely to false mental impressions; it may have been induced by some of the causes above mentioned, and persist in this manner after the cause is removed.

PART II.

It is no part of my intention to expatiate here on the more generally recognized causes of frequent micturition—those, in short, with which all are sufficiently familiar; but rather to refer to some of those which have received less attention, and appear to be capable of less easy solutions. Instead, however, of indicating them at once, it will be more advantageous, perhaps, to arrive at their consideration through a brief notice of the diagnostic signs, presented by the various morbid affections named in the Table, commencing with those which are most commonly known and readily identified.

In attempting to form the diagnosis of any case of difficulty or obscurity, it will be desirable to proceed by process of exclusion, and set aside in their order as many as possible of the affections to which it is known irritability may be due. Thus, in the first place, there will be no difficulty in detecting a form of disease, very uncommon, but sufficiently marked—viz., the acute inflammation of the bladder—by the intense pain felt about the pubes and perinæum, with excessive tenderness, especially in the former situation; by severe and darting pains constantly experienced in the groins, sacral and lumbar regions; while incessant spasmodic straining is present, with fruitless attempts to micturate, often of a most agonizing character. Together with these, severe constitutional symptoms are invariably present. The subacute form, much more frequently met with, is easily recognized by the presence of pain, generally dull and heavy, referred chiefly to the suprapubic region, often to the penis, testicles, and thighs; and by the tenacious mucous discharge, in greater or less quantity, which, mingling with the urine, is so characteristic of this condition of the vesical mucous membrane. In connexion with these symptoms, the patency of the urethral canal is to be determined by the use of the catheter, in order to ascertain the presence or absence of obstruction either from organic stricture or prostatic disease. The complication of calculus is indicated by the ordinary symptoms superadded to the foregoing, such as occasional sudden stopping of the stream of urine, some hæmaturia, pain in the glans penis and at the neck of the bladder after micturition, these pains being increased at all times by sudden or

violent movements of the body, such evidence being confirmed by the practice of careful sounding, repeated as frequently as may be necessary. The same process may reveal the presence of any growth within the viscus, from which all the subjective symptoms of calculus may arise, and even physical sign of rough grating to the sound may be communicated from adhering sabulous matter. The careful employment of exploring instruments, generally in such cases a painful and somewhat injurious process, repeated as often, and not oftener than is absolutely necessary, with the simultaneous examination of the base of the bladder from the rectum, will assist in determining the size and situation of the growth. This may spring from the prostate, generally from the neck or base, rarely from the sides of the bladder. There will be bloody and frequently offensive urine, often with thick, clotted, or sanious discharge; and in a later stage, the *débris* of tissues may appear by the urethra, if the disease be of malignant character. Among these, the microscope will sometimes—but it would seem not invariably, according to the experience of observers—detect the existence of cells similar to those met with in carcinomatous formations found elsewhere. One of the strongest confirmative signs of the malignant character of the complaint will be found in the cachectic condition of the patient, and in the presence of that peculiar sallow tint, which never appears more strongly marked than in these cases.

The fluid contents of the bladder must, in all cases, be submitted to close inquiry, a proceeding which is of the first importance, in order to ascertain correctly the chemical and microscopical character of the urine and its deposits—that is to say, the degree of acid or of alkaline reaction, the nature of the salts present, the existence of albuminous matters, of sugar, &c. Following these inquiries, the condition of the kidneys should be the subject of careful investigation. Some organic renal diseases, or some stages of such diseases, are not attended with vesical irritability, but the reverse is more commonly the case. The evidence of structural degeneration will be found in part from the constant appearance of albumen in the urine, from the presence of diseased epithelium and urinary casts under the microscope, generally found co-existing with increased quantity and low specific gravity of the secretion itself, as well as from the cachectic condition of the patient, the dry and pallid skin, the stomach derangement, pains in the loins, and about the pubes, and, lastly, from the anasarca of the cellular tissue which more or less at some period or another, makes its appearance.

Simple inspection is sufficient to determine the existence of

malformation of the prepuce, as when it is unusually long and narrow, of the meatus externus, of balanitis, of phimosis, or paraphimosis. An inquiry for recent attacks of urethritis in any form, but particularly the gonorrhœal, and an examination of the prostate gland per rectum, where other symptoms indicate such a course, together with the presence of perinæal swelling or tenderness, will furnish evidence respecting inflammation of that organ. The various affections of the rectum are febrile sources of too frequent micturition, and must be strictly inquired for, especially with patients of the female sex, such being exceedingly prone to consult their medical adviser respecting the symptom in question, and at the same time, failing to mention or denying the existence of any hæmorrhoidal or allied affection, which is very often the sole cause of the evil complained of. Vaginal, uterine, and ovarian affections of various kinds, come next in course, and are by no means unfrequent causes; such are ulcerations in any part of the female passages, misplacement of the womb, &c. Among them, a small growth of the so-called florid vascular tumour of the urinary meatus is by no means an uncommon cause of a whole train of painful symptoms, among which vesical irritability is prominent. It may be no bigger than a full-sized pin's head; its existence, perhaps, is unobserved and unsuspected by the sufferer; nevertheless, it may be the sole cause of all her sufferings. I have but very recently met with an apparently very obscure case, in which a distressing irritability was due to one of these growths, situated entirely within the urethral orifice, and, therefore, unseen except by opening the meatus. On the other hand, in young patients of both sexes we daily find intestinal worms, and, in elderly people, hæmorrhoidal and pruriginous affections occasioning unnaturally frequent micturition.

Such as these are some of the more easily recognised and common causes of irritability of the urinary bladder. Still it is obvious enough that there are not unfrequently cases presenting themselves to the surgeon, in which, having excluded all these by rigid inquiry, the morbid symptom remains unexplained and obscure. Such are the cases termed nervous or neuralgic, or simply irritable bladder, by some writers. I have contended that we are not justified in stopping here to employ such terms, but may with advantage push our inquiries further in search of the pathological seat of the disease, whether it be of a functional or an organic character.

Among the less obvious causes of irritable bladder, no organic lesion having been detected, is some abnormal condition of the urine itself, which, while it often indicates certain errors either in the assimilating or in the excreting functions, may

also be an early sign of organic changes occurring in the kidney. I believe that a chronic and insidious form of kidney disease is sometimes presented first to the surgeon, in an early stage, in which a superficial examination of the patient will detect no other sign than a somewhat unintelligible and obscure irritability of the bladder, although close investigation may render probable the existence of incipient organic disease; while in more advanced stages of the affection other signs manifest themselves, and the patient is often committed to the care of the physician, to whose province the treatment of renal disease is commonly supposed to belong. In the absence of apparently serious lesions, the persistent deposit of an undue amount of oxalic acid in the urine, in the form of the oxalate of lime, is often associated with irritability of the bladder, and may occasionally be the only marked deviation from health which can be noted respecting it. Dyspeptic ailments, are, however, commonly present, and a more or less impaired condition of the vital powers generally. Individuals who are much engaged in close mental occupation, or who are the subjects of excitement and anxiety, seem especially prone to manifest this particular derangement. Too much attention can scarcely be given to the continuous examination of the urine, where the concurrence of obstinate dyspeptic symptoms and vesical irritability, pain, or uneasiness are presented. If oxalates appear in a regular and persistent manner, we shall in very many instances of this really frequent affection find reason to regard the whole train of symptoms as due to that form of mal-assimilation which has been indicated by the phrase oxalic-acid diathesis. The researches of Dr. Prout especially, as well as of Dr. G. Bird, of Dr. Begbie of Edinburgh, and others, have rendered this subject familiar to practitioners. I have met with some examples of supposed local disorder of the urinary organs among patients who were labouring under the derangements alluded to, but who proved to be quite free from vesical or renal disease. In one of these, the urine, which was daily examined, exhibited on three occasions the rare form of dodecahedral in the place of octahedral oxalates. In that, as well as in other cases, I have found great benefit to accrue from the persevering use of the nitro-muriatic acid, as first recommended by Dr. Prout, combined with attention to the functions of the bowels and skin. Under the remedy named, the oxalate of lime disappears, the uric acid gradually replaces it in normal quantity, and the irritability of the bladder ceases to be complained of. As convalescence advances, the addition of the tincture of the sesquichloride of iron to the acid appears to be often exceedingly serviceable.

Uric acid in excess, met with, however, in a very different class of patients to those last considered, is very often associated with unnaturally frequent micturition, generally perhaps in cases where there appears to be some tendency to the gouty or rheumatic diathesis. That vesical irritability and even urethritis, may be the only very obvious manifestations of the gouty tendency exhibited by some patients, is a belief, now at all events commonly accepted. That they sometimes appear in conjunction with the most common manifestations of the gouty diathesis is well known. When any doubt in relation to this cause exists, inquiry into the family and personal history of the patient will assist the diagnosis; at the same time we shall seek for the presence of other signs of gout, appearing usually in persons of middle age; the predominance of lithic acid in the urine; undue vascularity of the skin and mucous membranes; disposition to chronic cutaneous eruptions; the better recognised symptoms of masked gout, as it is termed, such as sudden pains in the precordial region; palpitation of the heart; wakefulness and restlessness at night, &c.,—all these taken together will confirm the existence of a complaint, the judicious treatment of which, on principles which are generally recognised, will do more to allay the irritability of the bladder than any other means supposed to have a more direct influence upon that organ. Thus it is not uncommon to meet with these patients believing themselves to be suffering from stricture or prostatic disease, but whose symptoms disappear under a careful regulation of the diet, with sufficient exercise, and the judicious use of mild mercurial alteratives, with colchicum and alkalis. In regard of these latter most useful agents, in cases for which they are indicated, perhaps there is no form so sufficient or so well borne by the stomach, and certainly none so agreeable, as solutions of the carbonates and citrates of potash which have been well charged with carbonic acid. They are prepared in the ordinary form of aerated waters, and are greatly preferable to water containing the carbonate of soda. On this ground, and on that of practical observation of their use, I believe them to be more potent and more certain than the Vichy water, for most of the purposes for which that agent is commonly employed, while at the same time they are so much more economical. Thus, where deposits of uric acid assume the form of gravel—a condition very frequently associated with irritability of the bladder—the potash water may be most advantageously taken as a solvent, while relief of the symptom referred to is experienced simultaneously. There is another good reason, also, why these waters should be more valuable agents than the same doses of alkali given in the usual form of

draught or mixture. Pure water itself is the best solvent of saline matters in the urine, and the large quantity taken with the dose by the former mode probably accounts to some extent for its efficacy as compared with the latter. Besides, water in quantity acts as a diluent to all the urinary principles, and so renders the urine less irritating to the vesical mucous membrane already become more susceptible than in health, a condition arising in part from continued exposure to the unduly acid secretion, and in part from the primary malady, whatever it may be, which more or less induces a morbid condition of the mucous tracts of the body generally. The action of the carbonic acid extricated in the stomach appears also to be beneficial, and when we take into account the fact that some derangement of the assimilating functions lies at the root of the evil, that deficiency of tone is manifested in the reducing organ itself, it is not improbable that the gas may be regarded as an additional element of some value in the compound.—[*London Lancet*.

(To be continued.)

The Pathology and Treatment of Diseases of the Scalp, popularly known by the name of Ring-Worm. By Dr. WILLIAM JENNER.

[The difficulty of diagnosing (diagnosticating—Ed.) eruptive diseases of the scalp, is owing partly to their similarity to each other and partly to the different names given by different authors to the same thing. Popularly, ringworm is looked upon with the greatest anxiety and annoyance, as the term is supposed to represent a very obstinate and contagious disease.]

What is popularly meant by ringworm was by some of the older writers on skin diseases expressed by the word *tinea*; but the technical name being found, as our knowledge advanced, to have no definite signification, gradually fell into disuse.

It has been recently proposed to employ this word *tinea* again, and to give to it a precise signification. Under the generic name *tinea* it is proposed to include all diseases of the hairs produced, kept up, or attended, by the development of parasitic plants.

In this genus are included the following species: *Tinea favosa*; *Tinea tonsurans*; *Tinea decalvans*; *Tinea sycosa*.

It is to this genus *tinea*, and to these species of that genus, that I desire especially to call your attention; and I am confident that if you remember the names of the species of *tinea* I have just repeated, if you learn what I am about to tell you of

those species, and observe well the things I shall presently show you, the remaining and more common diseases of the scalp will be mastered in a very few hours spent in the out-patient's room.

Tinea favosa most commonly affects the hairy scalp, but now and then it is found on other parts of the surface. It is characterized by thick, dry, yellow crusts, which, if small, are circular in outline and depressed in the centre, cup-shaped. Passing through the centre of each of these crusts, is a hair.

If the crusts are very large they have an irregular shape, but still they indicate their origin from distinct centres by the semi-circular outline of the masses which project from their margin. These larger, irregularly-shaped crusts, are pitted on the surface, and, from their fancied resemblance to the cut surface of a piece of honey-comb, the disease has received the name of favus.

The margin of the large crusts rises considerably above the level of the cutis; internally, they seem as though half buried in the substance of the cutis. Carefully detach the crusts from the cutis, and a distinct layer of epithelium is found below them; examine the surface of the smaller crusts, and you find a layer of epithelium cover them.

The hair, at an early period of the disease, can be pulled out from the centre of each little crust with great facility; subsequently it falls off from the diseased parts, and permanent baldness results.

The crusts, then, of *tinea favosa* are remarkable for their thickness, dryness, brittleness, and depressed centre. *Tinea favosa* is not a pustular disease, but it is said, by those who have seen much of it (it is a rare disease in London), to be often consecutive to eczema, impetigo, chronic lichen, and herpes circinatus; pustules are sometimes formed subsequently to the *tinea favosa*, in consequence of the inflammation excited by the crusts, and the injury inflicted on the scalp by scratching.

Tinea tonsurans is often mistaken for herpes circinatus of the scalp, with which it is now and then conjoined. It is characterized by pallor, decolorization, and brittleness of the hairs, and the presence of thin white powdery scales around the base of the hairs, and on the skin between them. The diseased hairs have been likened to "tow." "They are," Mr. Wilson says, "remarkable for their bent and twisted shape, and resemblance to the fibres of hemp in colour and apparent texture." Their brittleness is sometimes such, that every hair on the affected spot is broken off just above the surface of the skin.

In *Tinea decalvans* the hair falls out rapidly from one or more circular spots, leaving a smooth bald surface. There is no eruption of any kind,—no crusts, no scales.

Tinea sycosa is characterized by inflammation of the hair follicles. Sometimes the inflammation leads only to the effusion of serosity, and the exudation of lymph around and into the capsule of the hair. At other times, and more commonly, pus is formed, and then, when the pustule breaks, a brownish scab is formed on the surface. The usual seat of *tinea sycosa* is, the chin, upper lip, and sides of the cheek. I had a case lately under my care in which the pustules occupied the inner surface of the nares,—that part from which the hairs spring that protect the orifice of the nose. *Tinea sycosa* rarely occurs on the scalp, and it does not spread circularly; so far as I know, the name of ringworm has never been applied to it. I mention it to you to-day, although I have no example of it among my patients to show you, because of its relation to the species of *tinea* of which we have examples before us.

You will have remarked, then, from the characters of the species of *tinea* I have mentioned, that—

Tinea favosa is especially characterized by its crusts.

Tinea tonsurans is especially characterized by decolorization and brittleness of the hair.

Tinea decalvans is especially characterized by baldness, not preceded or accompanied by an eruption.

Tinea sycosa is especially characterized by inflammation, tenderness, hardness, and suppuration of the hair follicles.

I told you that these diseases are arranged together in one genus, because in all a parasitic plant is developed in connexion with the hairs. Now, the plant present is different for each species of *tinea*; and the situation occupied by the parasite is also different in each species of that genus.

In *tinea favosa*, the parasite is the *achorion Schönleinii*. This plant has mycelium, sporule-bearing branches and sporules. The sporules are round or oval, and their diameter varies, according to Gruby, from 0·003 mm. to 0·01 mm.

The vegetable growth is first perceptible between the layers of the epithelium, just at the orifice of the hair follicle; from this point it may spread downwards between the hair and its capsule, and upwards around and in the substance even of the hair.

Such of you that visited ward 4 during the time Jacobs was in the hospital, had frequent opportunities of seeing the mycelium, the sporule-bearing branches, and the sporules of the *achorion Schönleinii*. You will recognise it in these very excellent drawings of Robin.

In *tinea tonsurans*, the parasite is the *trichophyton tonsurans*. This plant is composed of spores only; the spores, however, are occasionally somewhat elongated, and arranged in a linear

series. They are round or oval, and their diameter varies from 0.003 mm. to 0.01 mm.

The primary seat of the trichophyton tonsurans is the root of the hair; subsequently, it extends up into the substance of the hair, and even outwards, according to Bazin, on the skin between the hairs. I have under the microscope some hairs removed from the head of one of these children. You will see in one specimen the spores in the hair follicle; and, in another, the hair split up with the spores among the fibres, as figured in this plate by Bazin, and in this more highly magnified drawing by Robin.

In tinea decalvans, the parasitic vegetable is the *microsporon Audouini*. This plant is formed of branch filaments, on which the spores are developed. The spores are very small—from 0.001 mm. to 0.005 mm. The seat of the growth is the outside of the hair; it forms a sort of sheath around the hair, from the surface of the skin upwards, from 1 mm. to 3 mm. Gruby first described this plant, and its relation to tinea decalvans; and Robin says, he can confirm the accuracy of Gruby's description.

In tinea sycosa, the parasite is the *microsporon mentagrophytes*. It is also composed of filaments and spores; but the spores are larger, and the filaments broader, than those of *microsporon Audouini*.

The seat of the growth is the hair follicle between the hair and the capsule.

I have told you the names I would have you employ to signify the diseases I have described and demonstrated to you; but you ought also to know the names employed by the writers on skin diseases most popular in this country, to signify the same things.

Tinea favosa, then, is called *Porrigo favosa* by Willan and Bateman; Favus by Dr. A. T. Thomson, Simon and many other writers.

Tinea tonsurans is called *Porrigo scutulata* by Willan, Bateman, and Dr. A. T. Thompson; Herpes tonsurans by Cazenave; and Trichinosis furfuracea by Mr. Wilson.

Tinea decalvans is called *Porrigo decalvans* by Willan and Bateman; Vitiligo of the hairy scalp by Cazenave.

Tinea sycosa is called *Mentagra* by Willan and Bateman; Sycosis by Mr. Wilson.

As to the etiological relation of the parasite to the disease, it appears that the spores of the vegetable growth require for their developement a peculiar nidus. I say so, because all persons who mix with children suffering from tinea do not have the disease. But if a soil highly favourable to their growth exists, then a spore having found its way on to that soil develops

and forms other spores, and so the parasite spreads over the surface of the individual more or less rapidly, according to the more or less favorable nature of the soil.

[As tinea commonly appears amongst strumous and dirty children, we must first in the treatment enforce cleanliness, then strengthen and improve the general health of the patient, and then endeavour to destroy the parasite. The two first intentions are to be fulfilled on common principles, the last by a series of remedies termed 'Parasiticides.' Corrosive sublimate and acetate of copper have been much used, but there are many serious objections to their use, one of which is, that the hairs have to be forcibly removed from the affected parts.]

It is highly probable that, if sulphurous acid be employed as a parasiticide, epilation will be found to be altogether unnecessary to its complete action. This agent was first introduced to the notice of the medical officers of the hospital, by Professor Graham, as a possible remedy for cholera, at the time that disease was said to have its origin in the presence of an entophyte in the intestinal canal. It was first employed by myself to check fermentation, and to destroy the *torulæ cerevisiæ* and *sarcinæ Goodsirii*.* When lecturing on this subject, some time since, I expressed myself thus:—"Considerable benefit may be anticipated from the employment of sulphurous acid in all diseases attended with the development of parasitic plants. I would especially mention porigo."

The case I am about to read to you, of Hyman Jacobs, proves, that in regard of tinea (porrigo) favosa, these anticipations have been fully realized; while the case of the girl now in the room, and who is still under treatment, renders it highly probable that the beneficial effects of this parasiticide will be as manifest in tinea decalvans as they are in tinea favosa.

In some forms of thrush, too, I may mention that it acts most rapidly, one application of a solution of sulphite of soda (a drachm to an ounce of water) sufficing to remove the disease from the mucous membrane of the mouth in twenty-four hours. The secretions of the mouth being acid, the salt is decomposed, and sulphurous acid is set free; in this, as in all other cases, the sulphurous acid is the active agent in the destruction of the parasite.

Hyman Jacobs, aged 27 years, a Jew pedlar, a native of Amsterdam, and resident in London fifteen months, was admitted into the hospital on March 21, 1853.

*Several medical men have lately administered the hyposulphite of soda, instead of the sulphite; but the latter is the preferable salt, and for this reason, that when the hyposulphite is decomposed by the hydrochloric acid of the gastric juice, not only is sulphurous acid generated, but sulphur is precipitated,—a substance it is very undesirable to have in the stomach in some of these cases.

He was as most of you remember, a man of cheerful disposition, dark complexion, rather short, muscular, moderately stout; in fact, he looked generally in robust health. His habits were those of his class; he slept in the low common lodging-houses, fared badly, rarely eating meat, and judging from his appearance, was not very cleanly in his person.

He affirmed, and I believed him, that he was temperate in regard of the use of alcoholic liquor. His general health, he said, had always been good.

The scalp affection was of nine years' duration at the time he came into the hospital. He had been in many hospitals, but had never derived any marked benefit from treatment. When Jacobs came under observation, his condition was as follows:—

Cerebral, circulatory, respiratory and digestive functions healthy in all particulars.

The whole of the scalp, excepting the margin, was covered with the crusts of *tinea favosa*. The largest crusts were of a greyish yellow colour, of the consistence of dried putty or mortar, and brittle. Their thickness generally was considerable. Where thickest, the surface of the crust was below the level of the cutis; so that it looked at the first glance, as if the latter had been partially destroyed by ulceration. The surface of these crusts was very irregular; it had a pitted, worm-eaten, or eroded appearance. At the edge of the large, irregularly-shaped crusts, were many small circular crusts, depressed in the centre. A hair passed through the centre of each of these small crusts. When the crusts were forcibly detached from the scalp by mechanical means, the exposed surface of the cutis was very red and raw.

The head itched much; and though scratching gave considerable pain, it was evident, from the traces of blood on the surface, that he had been applying his nails to the part.

The odour of the head was very offensive, something like that emitted by mice, only as one of you remarked at the time, sweeter and more nauseous. Scattered over the trunk and extremities were a very large number of circular *favus* crusts. There were as many as forty on the back alone. The smallest of these appeared, when seen through a lens, to be constituted thus: in the centre was a hair, around and touching that a brownish-yellow crust, and around that again a dusky-red halo; the diameter of the whole not exceeding two-thirds of a line. On the back no crust was more than one-fourth of an inch in diameter; on the leg there was one one-third of an inch in diameter. These crusts were circular, raised about a line above the level of the cutis, hard, dry, and appeared as though made up of concentric rings of pale, greyish-yellow, and brown

colours alternating. The surface of these crusts was readily detached, and then a cup-shaped cavity was exposed, filled with a brimstone yellow powder. The base of the crust being removed, the surface of the cutis, from which it had been detached, was raw.

We saw, you may remember, the mycelium, sporule-bearing branches, and sporules of the achorion *Schönleinii*, when portions of the crusts, or of the yellow powder, were placed under the microscope.

No treatment was adopted for some time after the man's admission. On April 13th his state was exactly the same as when he entered the hospital. Rags, wet with a solution of sulphurous acid, were now ordered to be kept constantly on the scalp; the head to be covered with an oil-silk cap.

On April 18th, large quantities of crust had separated from the scalp, and those that remained attached had entirely lost their yellow hue; they were now of a dirty brown colour. All itching of the scalp ceased shortly after the application of the sulphurous acid. No sulphurous acid had been applied to the crusts on the trunk and extremities, and they had still the characters they presented on the man's admission into the hospital.

A piece of lint, wet with sulphurous acid lotion, was applied to one of the largest crusts on the leg.

On the 22d April a mere trace of the favus crust remained on the scalp; but the surface of the cutis was red, and there was an inflamed papula near the vertex. Thinking this condition might be partly due to the acid, which was a very strong solution, I ordered its use to be discontinued for twenty-four hours. The crust on the leg to which the sulphurous acid was applied on the 19th, had separated; the exposed surface was red, but not raw. *Two favus crusts which were seated in the vicinity of that to which the acid was applied on the 19th, were observed to be turning brown; subsequently they dropped off spontaneously.* The effect of the sulphurous acid gas on these two patches is of great interest, as illustrating the mode of action of the solution. The crusts on the scalp turned brown shortly after the acid was applied to them, and before they separated from the cutis.

On the 29th April the lotion was discontinued, and zinc ointment applied to the scalp.

On May 2nd the head was free from crusts, but the scalp was still red, and several inflamed papulæ were seated on it.

On May 9th the skin of the scalp was here and there more natural in hue, and one or two papulæ had supplicated; the pus was healthy in appearance, and there was no trace of the parasitic plant to be detected by the microscope.

On the 18th, the head continued free from favus; the scalp was much less red; the hair was growing. As the crusts on the trunk and extremities were still in the same state as on the patient's admission into the hospital, he was immersed, about nine in the evening, for half an hour, in a full-sized tepid bath, containing sixteen ounces of saturated solution of sulphurous acid; no friction was employed. During the night all the crusts save three fell from the surface.

On the 20th he was again immersed in the acid bath, and the next day no trace of a crust was to be found on the trunk or extremities. My note says:—"No fresh crusts on head; a small pustule occasionally appears, and dries up in two or three days, and then disappears entirely; the skin of the head generally is much paler and more healthy in aspect."

31st. The scalp was still paler than at the previous report. There were only two small pustules on the scalp. By the microscope, no trace of the parasite could be detected. The skin generally appeared healthy; and, on June 21, Jacobs left the hospital, at his own desire, to return to Holland.

I cannot conclude without expressing my confident belief, that a very great advance was made in pathology when the vegetable nature of the disease I have to-day referred to, as well as of some others, was demonstrated; and my equally confident belief, that the foundation for a very great advance in therapeutics was laid when Professor Graham introduced to notice the power of sulphurous acid to destroy vegetable life, and explained how it could be given internally without injury to the patient.

Note.—The solution of sulphurous acid I have used is made by passing a stream of the gas through water till the latter is saturated. Of this saturated solution, two ounces may be added to six ounces of water, to make the lotion.

The saturated solution of sulphurous acid I have employed has been either prepared in the Birkbeck Laboratory of University College; or procured from Button's, Holborn; Hopkins and Williams, New Cavendish-street; or Burcham's, Albany-street.—[*Medical Times and Gazette*.

Remedy for Favus.

From the observation of about a dozen cases of severe favus (diagnosis by the microscope in all) recently treated by Mr. Startin at the Hospital for Skin Diseases, we can speak with great confidence of the efficiency of the following ointment.—It is the Ung. sulph. comp. of the Pharmacopœia of that Institution. ℞. Sulph. sublimati lbss.; hydrarg. ammoniochloride.

℥ss.; hydr. sulphureti cum sulph. ℥ss. Leviga simul, dein adde olivæ olei ℥iv.; adipis recentis ℥xvj.; creosoti ℥xx.; misce. To correct the state of general health, Mr. Startin commonly orders simultaneously a mild course of the iodide of potassium, but this, we suspect, has but a small share, if any, in the local result. Often when the scalp has been for many years thickly covered with the peculiar favus crust, four or five nightly applications of the above ointment have sufficed to make it perfectly clean. So long as the patient will continue regularly to use a small quantity every day, the disease may be prevented from re-appearing, and the condition assumed by the scalp under its influence might easily be mistaken by the inexperienced for one of complete cure. As soon, however, as theunction is suspended, the eruption re-appears. This liability we have known, in more than one case, to extend over nearly a year, and probably it may for much longer periods. The ointment, however, which does not smell much, need only be applied at night, and may be washed entirely away every morning, so as to entail but little inconvenience on the patient. The hair will, to a considerable extent, grow during the treatment, provided that the scalp have not been too much destroyed. In a most disgusting disease, for which as yet no real cure is known, it is much to be in possession of an almost certain means of ensuring its absence. The ointment no doubt acts as a parasiticide. Before its first application it is desirable to clear away the crust as much as possible, either by fomentation or a poultice.

We may remark, that the ointment mentioned is used by Mr. Startin in the treatment of scabies, and also in that of the contagious form of porrigo.—[*London Med. Times.*

On Epiphytes and Entophytes.

From a Review of DR. ROBIN'S "Natural History of the Parasitic Vegetables which grow on Man and on Living Animals;" and of DR. BAZIN'S "Researches into the Nature and Treatment of Tinea;" by DR. E. A. PARKES.

[It may be observed that all the vegetables which grow on living beings are low forms of Algæ, or Fungi.]

Most of these plants are composed of simple cells, or of cells placed side by side; the unicellular algæ being distinguished from the unicellular fungi by containing chlorophylle or some analogous substance, and usually one or more colored vesicles. The more highly formed algæ are composed of interlaced filaments (*Trichomata*), simple or ramified, cylindrical or flattened, and containing colored molecules; and of a reproductive system—viz., vesicles *sporangia*, *conceptacles*) and spores

(*sporidia*.) The fungi are represented by filaments, at first simple, then ramified, and formed by a single elongated cell, or more rarely, by several cells placed end to end (*mycelium*.) The reproductive system is constituted by spores, which are seated on a receptacle, either at once or by the mediation of certain special structures, or are contained in a distinct vesicle (*sporangium*.)

It would lead us too far to go into the minute anatomy of these plants, nor shall we attempt an account of the various genera and species which are found on the lower animals. We shall content ourselves with enumerating those which are found on the bodies of men.

The conditions of growth of the parasitic plants on human bodies are the same in all other cases. Whenever the normal-chemical processes of nutrition are impaired, and the incessant changes between the solids and the fluids slacken, then if the parts can furnish a proper soil, the fungi will appear.

The soil on which these plants grow is for the most part composed of epithelium or cuticle, acid mucus, or exudation; acidity, although favorable for their growth, is not indispensable, since some of the cryptogamia grow in an alkaline or neutral ground, as on the ulcerations of the trachea. On the skin, and in the buccal and pulmonary cavities, the plants are exposed to atmospheric air, and many of the fungi absorb oxygen, and emit carbonic acid. In the intestines, the nature of the gas is somewhat different; but some species grow here also. Humidity and warmth are important conditions of growth, and these, of course, are always to be found in connection with the animal body.

An useful division of the subject for our purpose is afforded by the anatomical seat of the cryptogamia on the skin, or on the mucous membranes of man.

A. CRYPTOGRAMIA ON THE SKIN.—Ten varieties have been noted in this locality. We shall enumerate them in the order in which they are given by M. Robin.

1. *Trichophyton tonsurans* (Malmsten).—Syn. *Trichomyces tonsurans*; *Mycoderma* of the *Plica polonica*; fungus of the hairs in *Herpes tonsurans*; fungus of *Porrigo scutulata*; *Achorion Lebertii*; fungus of the *Teigne tondante* (Bazin); *Rhizo-phyte* (Gruby).—This fungus was discovered and described in 1844 by Gruby, in the disease called by the brothers Mahon 'Teigne tondante;' by Cazenave 'Herpes tonsurans;' by Erasmus Wilson 'Trichoses furfuracea,' (one of the diseases called ringworm and porrigo scutulata in this country). It exists also, as pointed out by Gösberg, in the plica polonica, although the two plants were formerly described as different.

The trichophyton is formed by oval transparent spores, which give rise to articulated filaments. Its anatomical seat is in the *interior of the roots of the hairs*. The hair and fungi simultaneously increase; the former seem larger than usual, are paler in color, lose their elasticity, soften and break off when they have risen some one or two lines above the surface of the scalp; in the short cylinder then left the fungus grows still more rapidly, so that the normal structure of the small stump of hair soon becomes indistinguishable. Sometimes the hair breaks off before emerging from the skin, and the fungus, epidermis, and sebaceous matter fill the ends of the piliferous conduits, and form the little prominences which can be seen by the naked eye in this disease, and give the skin a rough, anserine appearance. The sporules and mycelium of the plants can sometimes be seen, in the form of a white powder, on the roots of the broken hairs; sometimes the cutis becomes congested and thickened, and then the plant is mixed up with scales of epidermis, with fatty and albuminoid granules, with pus, &c.; and crusts are formed of greater or less thickness, in which the growth of the fungus can go on.

MM. Robin and Bazin adopt unreservedly the opinion that the trichophyton is the cause of the disease known under the various names above given; and each author relates examples of the contagion of the disease by transmission of the spores. Bazin has made the very important observation that the same disease will attack horses, and can be communicated from them to men. But both Robin and Bazin, however, admit that there is some condition of the hairs (dependent, no doubt, on constitutional causes) which is essential for the growth of the plant, as sometimes the disease disappears—i. e., the fungus dies—without treatment.

The *diagnosis* of this disease is extremely easy. The usually round bald patches, with the little elevations caused by the swollen roots, and the dryish scales of epidermis covering the skin more or less, and accumulating round the elevations, are very distinctive marks. Occasionally, when the cutis is more congested, and the crusts are thicker from abundant cuticle and exudation, some doubt may exist, but then the trichophyton can be usually found in the crusts.

The *treatment* of this species of ringworm has been long one of the most difficult points in dermatology. Its principles, however, are now well understood, and few cases resist the proper measures. The essential point is to apply to the roots of the hairs a preparation which may destroy the trichophyton; if this can be done, the disease is cured. It is first of all necessary to remove the hair; this is in part generally accomplished

before the case comes under treatment, by the course of the disease; if it has not been sufficiently done, 'epilation' can be accomplished by a chemical agent, or by extraction with pincers. M. Bazin recommends the ointment given below,* or the oil of cade, which appears to be the best depilatory known or with these means epilation with the pincers may be combined. The removal of the hair permits a "parasiticide" solution to be applied to the hair-follicles, within which are the prolific spores of the fungus. For this purpose M. Bazin recommends either a solution of bi-chloride of mercury (1 part to 250 of water), or an ointment of the acetate of copper (1 part to 500 of lard). We have used also, with excellent effect, a solution of the pernitrate of mercury, about 1 part to 30 or 40 of water; this is, however, a very powerful remedy, and is to be cautiously used, as it easily blisters the scalp. We have used also an ointment composed of sulphate of copper (1 part), alum (3 parts), and lard (20 to 30 parts, according to the age of the patient). Probably, however, a better parasiticide agent than any of these is the sulphurous acid, which we have seen Dr. Jenner employ lately in a case of favus, with astonishing results, and which doubtless would be equally successful in tinea tonsdens. Chlorine water might also possibly answer the same purpose.

With respect to the name of the most common disease in which the trichophyton tonsurans appears, the term used by Cazenave (herpes tonsdens) is extremely unfortunate; no doubt vesicles are sometimes seen, and sometimes the cryptogamic disease succeeds to true *herpes circinata* of the scalp, but in many cases there are no vesicles at all throughout the whole course of the disease. The term used in this country, *porrigo scutulata*, is inconvenient, as it is applied with greater justice to favus. The old term of tinea is, after all, by far the best, and the specific affix tonsdens expresses well one great feature of the disease, the baldness arising from the brittleness of the hairs.

[The second species, which has been little studied, is the *Trichophyton sporuloides*. The 3d is the *Trichophyton ulcerum*. M. Lebert has described a fungus in the crusts covering an atonic ulcer of the leg. The 4th is the *Microsporon Audouini*, present in the disease termed *Porrigo decalvans* by Willan. The 5th is the *Microsporon mentagrophyta*, found in a case of mentagra. This disease is easily cured by epilation, and subsequently using a lotion of bichloride of mercury. The 6th the *Microsporon furfur*, has been discovered in the

* Lime and carbonate of soda, of each one part; lard 30 parts.

Pityriasis versicolor of Willan. The 7th, the *Achorion Schönleinii*, is the most important, being the fungus of Favus.]

Schönlein was the first to suggest that the honeycomb, or yellow favous crusts in the so-called porrigo lupinosa (Willan) and porrigo scutulata, were constituted by a vegetable growth. This has been repeatedly confirmed, and many excellent descriptions have been given of the disease, now called indifferently favus, tinea favosa, or porrigo scutulata; but none, we think, better than that which is contained in the work before us.

M. Robin believes he has discovered that the primary seat of the achorion is in the depth of the hair follicle, against the hair, and, as we can understand the description, outside the layer of epithelium which covers the root of the hair, and which forms "the inner root-sheath" of Kölliker. In this observation, however, he has been anticipated by Wedl, who has pointed out that by using a concentrated solution of liquor potassæ, to make the parts transparent, the fungus is found in the follicle around the hair at the place where it passes through the epidermis. In addition to this, the plant is found in depressions on the surface of the skin, forming the yellow honeycomb-like masses which gave the specific name, favus, to the disease; and which, from their frequent buckler-like shape, suggested the term 'scutulata.' The development of the achorion in this situation is described by Robin after Remak and Lebert. A cuticular elevation is seen, beneath which is a small favus; when the cuticle is raised a drop of pus sometimes issues; hence the error of those who have considered this disease always pustular; generally, however, (Robin, Simon, and Hæffé,) there is no pus or liquid of any kind; the plant grows, and the cuticle over it (supposing it has been forcibly detached) finally separates, leaving the favus exposed to the air.

M. Robin does not notice the important statement of Simon, that at first there is at the point where the favus is about to form only an increased secretion of epidermis; he notices briefly the fact, that sometimes the under surface of the favus is coated by cuticle, which separates it from the compressed and attenuated derma.

The structure of the favus is given at length by both authors, but it is scarcely necessary to do more than notice that Robin, in addition to the mycelium, the spores, and the receptacles of the achorion, describes a finely granular amorphous layer, which forms the external coat of the favus, and is the representative of the amorphous 'stroma' which often accompanies the mycelium of algæ and fungi. In the favus also, as we shall presently see, another and distinct fungus can sometimes be found.

M. Bazin describes the favus under three heads, which are fundamentally identical and different only in respect of form.

1. *Favus urceolaria dissemina*: this corresponds to the porrigo favosa, *Favus dispersus*, Teigne alveolaire, of other authors.

2. *Favus scutiformis*: this is the porrigo scutulata, or favus confertus.

3. *Favus squamosa*; a form usually called scutulata, but distinguished chiefly by the irregular distribution of the achorion, and by the furrowed masses formed by the fungus, the hairs, epidermis, and exudation.

The treatment of favus recommended by Robin and Bazin is epilation, and the application of the corrosive-sublimate solution, or of acetate of copper ointment (1 part to 500 of lard,) to kill the plant still remaining adherent to the hair follicle. We suspect that the sulphurous acid employed by Dr. Jenner will be found a more effectual application than either of these two. [The remaining species of this division are unimportant.]

B. CRYPTOGRAMIA ON THE MUCOUS MEMBRANE.—The plants forming on mucous membranes, or in the contents of cavities lined by mucous membrane, are of less interest than those which grow on the skin, as in most cases they are decidedly only secondary. We shall merely enumerate them.

1. *Cryptococcus cerevisiæ* Kutzing. (Syn. *Torula cerevisiæ*—the yeast-plant,) in the bladder, stomach, intestines, &c.
2. *Merismopædia ventriculi*. Robin. (Syn. *Sarcina*.) in the stomach, intestines, &c.
3. *Leptothrix buccasis*. Robin. (Syn. *Alga* of the mouth.
4. *Oscillaria* (?) of the intestines. Farre.
5. *Leptomitum urophilus*. Montague. (An alga, described as forming in the urine. It has as yet been scarcely studied.)
6. *Leptomitum* (?) *Hannoverii*. Robin. (Alga found by Hannover in the pharynx and œsophagus.)
7. *Leptomitum* (?) of the uterus.
8. *Leptomitum* of the uterine mucus.
9. *Leptomitum* of the eye.
10. *Oidium albicans*. Robin. (Syn. *Cryptogamia* of diphtheritis and aphtha.) A phytomyces (Gruby.)
11. *Fungus* of the lung. Bennett.
12. *Fungus* in the discharge of glanders.—[Braithwaite's Retrospect, from Brit. and For. Med. Chirurgical Review.

On the Transmission of Secondary Syphilis from the Male Parent to the Fœtus in Utero, and the subsequent infection of the Mother through the medium of the Fœtal Circulation.

By W. TYLER SMITH, M. D., Physician Accoucheur to St. Mary's Hospital. (Read before the Harveian Hospital.)

In bringing before the Society a few cases bearing chiefly on the transmissibility of secondary syphilis to the fœtus in utero, from the male parent, I cannot pretend to offer anything novel, or to claim any interest beyond that which attaches to a very important subject; but I trust I may elicit the experience of the Fellows of the Society, many of whom have without doubt seen cases similar to those about to be described.

When we consider the length of time during which syphilis remains in the constitution after it has once passed into the secondary form, the Protean shapes it may assume, and the great difficulties which attend any attempt to trace the moral histories of individual cases, it is not surprising that discrepancies of opinion should exist respecting the transmissibility of constitutional syphilis. After John Hunter, the greatest name in syphilis is undoubtedly that of M. Ricord. I believe I may briefly state the doctrines of this indefatigable observer to be as follows:—

He believes that when the primary poison is taken, it remains during several days in a state of incubation, during which time the poison may be destroyed, without any danger of the subsequent occurrence of constitutional disease. That after this time chancres take on certain characters, and infect the whole constitution, giving rise to the train of evils known as constitutional syphilis. He does not believe that a sore or chancre, capable of communicating syphilis by inoculation, can ever arise as a secondary symptom. He believes that for the presence of constitutional symptoms it is absolutely necessary that a primary sore should have pre-existed, except under two conditions—namely, that a man suffering from constitutional syphilis may impregnate a healthy woman, and the germ may, in the first place, have constitutional syphilis, and, in the second, communicate it to the mother, without the existence of any primary disease in either mother or child. Here, I believe, syphilitic contagion stops, in the opinion of Ricord. He does not believe in the communication of syphilis by the secretions, or by the discharges from secondary eruptions or sores. Nor does he believe that a child affected with secondary syphilis can communicate the disease to a healthy nurse, or that a nurse affected with constitutional syphilis can convey the disease to a healthy infant through the medium of the milk.

Other French writers, and authorities upon the subject in this country, assert, on the contrary, that a man or woman having secondary syphilis may communicate it during intercourse in a direct manner; that a child having congenital or secondary syphilis, may infect its nurse in the act of sucking, the nurse having been previously free from the disease; that the nurse, thus diseased, may become a medium of infection to others; that an infected woman, suffering from secondary syphilis only, may infect a healthy child, through the milk. These are the views held by Dr. Whitehead, in his work on "Hereditary Diseases," published in 1851, and by Mr. E. Wilson, in his work on "Syphilis," published in 1852. Mr. Wilson goes so far as to assert the identity of gonorrhœa in which no urethral chancre existed. Cases are given which appear to warrant these views, but the whole question of the transmission of secondary disease is in such an unsettled state that no apology can be needed for introducing it in a Society like the present. The following cases bear upon some of the points in dispute, and it will be impossible for any one who pays attention to this subject not to acknowledge, that it is one whose importance, both as regards medical science and the physical degeneration of mankind, is much underrated or overlooked.

CASE 1.—The following case came under my observation at St. Mary's Hospital, and I was as careful as possible in tracing its history:—

R—S—, a healthy young woman, married a cabman in 1842. She had successively three children, all of whom are living and in excellent health. No spot or blemish has ever been observed upon them. For some time she remained without becoming pregnant, but in December, 1850, her fourth child was born. This child, shortly after its birth, had red spots upon its face and neck, and an eruption upon its buttocks. The child also had a profuse secretion from the nose. It died of what was called bronchitis, at the age of seven weeks and some days. She again became pregnant in 1852, and gave birth to a fifth child, which, like the preceding child, appeared healthy at the time of its birth. In April, 1852, this child was brought to me, and certainly presented one of the most wretched spectacles I ever beheld. The child had remained healthy until it was three months and a half old, when it got hooping-cough; a month afterwards it was brought to the hospital. Its eyes and mouth were surrounded by deep rings of coagulated blood, and its ears and nostrils were plugged with coagula; blood had also been lost by the bowels. All these orifices, mouth, nares, ears, eyes, and anus, had bled some days every time the child had had a fit of coughing. It was scarcely liv-

ing when I saw it; the pulse was almost imperceptible; the face and surface of the body were blanched from loss of blood; it appeared insensible. I ordered the child to be put in a milk bath, and to have broth enemata, but I heard that convulsions came on shortly afterwards, and soon ended in death. In signing the certificate of this child's death, I returned it as dying of convulsions consequent upon whooping-cough, and loss of blood. I had then no suspicion whatever of syphilis, as nothing was said of the death of the former child.

In the month of March, 1853, the same woman brought me a child, born in December, 1852, about whose condition there could be no mistake. Its buttocks were covered by large erythematous patches in a state of ulceration; the scrotum looked as if it had been covered with yellow varnish; the mouth and nostrils were fissured; the eyelids gummy; and the mucous membrane of both eye and nose secreting a profuse gummy matter; the inside of the lips and the surface of the tongue were aphthous; the cheeks were varnished and wrinkled. This condition of the child had come on gradually about a month previously; before this it had appeared healthy. The mother herself had never had any eruption, sore-throat, catamenial irregularities, leucorrhœa, or any symptom which, on the most minute inquiry, gave evidence of the presence of the syphilitic poison. During the whole of her married life she had not been conscious of any change in her health. I saw the husband of this woman, and he admitted that five years ago he had an outbreak of secondary syphilis, the primary disease having occurred four or five years before. He then became an out-patient at the Lock Hospital, and was mercurialized. During the presence of the secondary disease he avoided intercourse with his wife, and was confident that he did not communicate the disease to her. He had severe sore-throat, and a copper-coloured eruption. When I saw him the only signs of disease were a few acne upon his forehead, and he declared that nothing more than this had appeared upon him for the last two or three years. The wife has, at the present time, a mammary abscess, but she has had abscesses while suckling the last four of her children.

In this case, if the statement of the man can be relied upon, the syphilitic poison remained in abeyance during the first five years of his marriage, and the children born during this were not affected. After this, two children were destroyed, and a third poisoned, with syphilis. This woman, it will be observed, never aborted. Can the mammary abscesses in this woman be referred to syphilis? It certainly appears as though the poison in this case affected the children without influencing the constitution of the mother.

CASE 2.—A woman applied during the course of last year at St. Mary's Hospital, with a nurse-child which she was suckling, and she also suckled at the same time a child of her own. The nurse-child was four months old. The skin of its face was like yellow tissue-paper; its nostrils and eyes were secreting an abundance of gummy mucus and pus, and the nates and scrotum were covered with erythematous patches in a state of ulceration. Numerous blotches appeared on other parts of the body. The mouth and anus were deeply fissured, and the child's mouth bled every time it took the breast. The woman applied both children to either breast without reservation. When I first saw the diseased child, she had suckled it about a month. The woman herself, and her own child, were at this time free from any obvious signs of disease. The nipples were healthy, although the discharges from the nurse-child's mouth were so acrid, that on the spots where it sucked its own fingers erythema and ulceration ensued. The nature of the case being evident, the woman was cautioned not to apply her own child to the same breast with the nurse-child, and the case was narrowly watched, during treatment, for upwards of three months. In answer to the first inquiries on the subject, it was stated that the father of the diseased child had last year been an out-patient at the hospital, under the care of Mr. Spencer Smith; and on referring to the hospital registration books, I found he had been treated for an eruption of the leg, which was set down as "probably syphilitic."

The man himself, on being examined, gave me the following account of himself:—He had contracted syphilis in 1849; a chancre appeared on the foreskin, and remained there three weeks. It was followed by an inguinal bubo. For these symptoms mercury was given him, but he was not salivated. He, however, became apparently well under its use. Last year he got his fellow-servant with child, and married her when she was large in the family-way. The child—the diseased nurse-child already referred to—was born in January, 1853. From the time of the chancre up to the time immediately previous to that at which his wife fell pregnant, he had observed no signs of any secondary affection. But just before this he had lost his situation, that of a butler, and, faring worse than usual, he became out of health. His hair now fell off; he had no sore-throat, but the eruption appeared on his legs, for which he was treated by my colleague, Mr. Henry Smith, and he had a scaly, copper-coloured eruption on his forehead, which became very distinct after eating and drinking. He also suffered at intervals from severe rheumatic pains.

The wife remained in apparently good health. She was

confined, I believe, in Queen Charlotte's Lying-in Hospital, and was subsequently recommended by Dr. M. Babington as wet-nurse to a lady living in the country. The husband is in constant communication with his wife, and states that she has given satisfaction as a nurse, and is in perfect health, with the exception that she menstruates somewhat profusely, and oftener than natural. It has not been hidden from the lady whose child the woman is suckling that the nurse's own child had fallen into bad health.

It became, of course, a very interesting question to determine, as far as possible, whether the diseased child would communicate secondary syphilis to its foster-nurse, and whether the foster-nurse would communicate the disease to her own child or her husband, and also to ascertain whether the mother of the diseased child could communicate constitutional syphilis to her foster-child. Here was a case in which secondary syphilis might have at once been communicated to at least four persons, besides the parents of the diseased child and the child itself, if we recognize the transmission of constitutional syphilis through the medium of the secretions. In all, six persons were exposed to the danger of syphilis by the intercourse of the father of the diseased child with his fellow-servant. As far as this case goes to the present time, and I have now had it under my observation nearly four months, it tells against the communication of secondary syphilis from one person to another, either by means of the matter from secondary sores, or the secretions of a person suffering from secondary syphilis.

Some time after the child had been under treatment, its foster-nurse had two or three pimples upon her neck, between the breasts; but she stated she had had the same kind of pimples before she began to nurse the foster-child. When she began to confine the diseased child to one nipple, that nipple became sore, and a large serpentine ulcer formed upon. The ulceration had not, however, the yellow base or other appearances of a syphilitic sore, and three times I performed inoculation with matter taken from this sore, without any effect. The woman has had no signs of secondary disease in any other part of the body, and is as well as a woman could be expected to be who was suckling two children. Her own child is perfectly free from all signs of disease, and so is her husband, at the present time. I have purposely limited the treatment to the diseased child itself, so that I might observe the condition of the nurse.

The state of the mother of the diseased child is perhaps suspicious, as menorrhagic losses are among the most common signs of secondary syphilis in the female; but still it is extreme-

ly frequent in wet-nurses who menstruate during lactation. I have seen Dr. Babington, and cannot learn that the child shows any signs of disease. It is fat and healthy, and although the suspicions of the mother have been excited, she appears perfectly satisfied with the health of the nurse. Thus, as far as this case goes, the syphilized father begot a diseased child. The mother suffered slightly, if at all—probably not at all—and has not communicated disease to her foster-child. The syphilized child has not communicated disease to its foster-mother and father, or to its foster-brother, though it would be difficult to conceive a mouth in a more aggravated state of disease than was the mouth of this child when I first saw it. The eruption and other signs of disease were relieved by grey powder, a mercurial girdle, the iodide of potassium, and cod-liver oil.

These cases show the amount of disease which may follow marriages in which the husband has had syphilis previously, and in which even slight signs of the disease remains in his constitution.

I have also arrived at the conclusion, that where the placenta and membranes become so diseased as to cause abortion, the child remaining free from disease, the mother is pretty sure to be affected with the disease; but when the child is born living, and is apparently healthy at the time of birth, the mother may in some cases escape contagion. When the children are born healthy, the eruption generally comes on a few weeks after birth, and is probably excited by the alternations of temperature, and the irregularities of nutrition to which the infant is exposed after birth, as compared with that of the fœtus in utero. Probably in some infants born of healthy mothers and syphilised fathers, the eruption may not appear until long after birth; at least, I have seen cases which seemed to warrant such a conclusion. When the ovum is affected by secondary syphilitic disease, we can easily understand that the blood of the fœtus should infect the mother through the placenta. By pregnancy, through the medium of the blood of the ovum, the blood of the male parent is, as it were, positively transfused into the blood of the female. There can be no doubt I think, that in practice, in all cases of repeated abortion, and eruptions in the early months of infancy, the health of the male parent before marriage should be strictly inquired into.

With respect to the contagiousness of secondary sores, it appears to me to be at present an undecided question, but I have not seen a case in which it could have been pronounced with certainty that a secondary malady was communicated from one person to another by intercourse without the presence of primary sores. I might have added many other cases

but those I have related are two of the most interesting which have come under my own observation, and in which I was able personally to verify most of the facts relating to them. Not the least important of the results, as I have observed them, is the frequency of leucorrhœa as a leading symptom of secondary disease when communicated to the mother by the ovum.

[*London Lancet.*

General Bloodletting in Insanity.

The American Journal of Insanity, edited by T. Romeyn Beck, M. D., for April, 1854, contains an elaborate article of 118 pages upon "Bloodletting in Mental Disorders," by Pliny Earle, M. D., of New York city, in which the latter analyzes with much ability, one hundred and thirty-six authorities, illustrative of this proposition, namely, "to what extent, in regard to both frequency and quantity, is the abstraction of blood required in the treatment of insanity:"—from all of which he draws the conclusions which follows:

"A reply to the propositions at the commencement may now be attempted. It is evident, however, from the very nature of the case, that no positive, definite answer, couched in terms as fixed as the figures representing numbers, can be given. It must be merely approximative. I shall endeavor to convey it in a series of facts, truths or inferences, which I hope are fairly deduced from the substance of the foregoing pages.

1.—Insanity, in any form, is not, of itself, an indication for bloodletting.

2.—On the contrary, its existence is, of itself, a contra-indication. Hence, the person who is insane should, other things being equal, be bled less than one who is not insane.

3.—The *usual* condition of the brain, in mania, is not that of active inflammation, but of a species of excitement, irritability, or irritation, perhaps more frequently resulting from or accompanied by anæmia, debility, or abnormal preponderance of the nervous over the circulatory functions, than in connexion with plethora and enduring vital power.

4.—The excitement, both mental and physical, produced by this irritation, can, in most cases, be permanently subdued, and its radical sources removed by other means, more readily than by bleeding.

5.—Yet insanity may be co-existent with conditions,—such as positive plethora, a tendency to apoplexy or paralysis, and sometimes sthenic congestion or inflammation, which call for the abstraction of blood. Therefore,

6.—Venesection in mental disorders should not be absolutely abandoned, although the cases requiring it are very rare.

7.—As a general rule, *topical* is preferable to *general* bleeding.

8.—In many cases where the indication for direct depletion is not urgent, but where bloodletting, particularly if local, might be practiced without injury, it is safer and better to treat by other means, equalizing the circulation and promoting the secretions and excretions.

9.—The physical conditions requiring bloodletting more frequently exist in mania than in any other of the ordinary forms of mental alienation.

10.—Insanity following parturition, other things being equal, is to be treated by bleeding less frequently than that which has its origin in other causes.

11.—If the mental disorder be the direct result of injury to the head, the treatment must be directed to the wound, or its physical effects, not specially to the psychic condition.

12.—In many cases where insanity is accompanied by typhous symptoms, and in some where the aspect is that of acute phrenitis, active stimulants alone can save the patient, and direct depletion from the circulation is almost certainly fatal.

The following extract from the last number of Ranking's Abstract, exhibits the state of opinion on the continent of Europe with respect to venesection as a remedy for insanity, and corroborates the conclusions of Dr. Earle :

Prejudicial Effects of General Bleeding. Dr Webster in his report on French Asylums, says :

“Although it was not originally intended in the present remarks to discuss the medical treatment usually pursued in French Asylums, one point seems, however, of so much importance that it deserves some notice in these pages ; particularly, as great unanimity of opinion prevails among the physicians of departmental institutions, with whom I had an opportunity of conversing upon the question. I now refer to the employment of bloodletting as a remedy in cases of insanity. Without an exception, every practitioner was decidedly opposed to the *general* abstraction of blood in maniacal patients, as they consider it not only unnecessary, but often injurious. In many cases venesection produced so much depression, that attacks of mania, which otherwise might have been of short duration, under a different but more judicious mode of treatment, were thereby prolonged, and even ended in fatuity.

Exceptions Requiring Bloodletting.

Of course particular cases of insanity presented themselves where inflammatory symptoms appeared so decided, or in which apoplectic congestion existed to such an extent, that local or general abstraction of blood was then absolutely necessary ; nevertheless, these examples were exceptional, and only confirmed the observations made by the most experienced officers, medical officers of French asylums, respecting the baneful consequences of bloodletting in most cases of mental disease, which came under their cognizance. Indeed, one gentleman remarked ‘the delirium of insane patients was never modified by frequent and copious bleedings, but often the reverse.’

Being supported in these practical conclusions by the opinions of many English physicians, it cannot be too strongly impressed upon the minds of young practitioners, or of those who may not have had much experience in treating cases of insanity, to be always exceedingly chary of using the lancet."—[*N. O. Med. and Surg. Journal.*]

To prevent Night-sweats in Phthisis.

Night-perspirations in the course of phthisis are often extremely annoying to the patient; they appear, also, to be simply debilitating, and unattended by any degree of collateral benefit. Some cases which were carefully noted by Mr. Hutchinson, the Clinical Assistant at the City Hospital for Chest Diseases, with a view to the determination of that question, appeared to show that they may be artificially checked, not only with impunity, but with great benefit. The patients who were so treated, and who, in the course of a week or a fortnight, got quite rid of sweatings which for months had been profuse, thought themselves much better, and did not complain of increase, either as regards the expectoration, the feverishness, or the sense of stuffing in the chest. Under the usual treatment of phthisis, (full diet, cod-liver oil, and tonics,) the tendency to night-perspiration often ceases spontaneously. If it becomes desirable to expedite the process, it may be done by the sesquichloride of iron, the mineral acids, or, best of all, by the gallic acid. The following is the prescription for a night-draught containing the latter:

℞ Acidi gallici. gr. vij.; morph. acet. gr. $\frac{1}{8}$; alcohol q. s. (a few drops); syr. toltan. 3ss.; aquæ 3j.

The night-pill, as we find in the Pharmacopœia of the Brompton Hospital for Consumption, is—

℞. Acid. gallic. gr. v.; morph. hydrochl. gr. $\frac{1}{8}$; mist. acac. q. s. Ft. pil. ij.

It is also of advantage to adopt an astringent regimen as far as convenient. The patient should be directed to sleep on a mattress, alone, and not heavily clothed; he should wear no flannel in bed; as dry a diet should be taken as conveniently can be borne, and fluid should be especially avoided in the latter half of the day, none whatever being allowed later than several hours before bed-time.—[*London Med. Times.*]

Ergotine. By E. DONNELLY, M. D.

According to Bonjean, Ergot contains two active principles, essentially distinct and constant in their effects, to wit: an active poison and a powerful and useful remedy; the first is an oil, very soluble in cold ether, and insoluble in boiling alcohol, and in which exists the toxicological properties of Ergot; the second he denominates Ergotine, which is a dark red extract, very soluble in cold water, and possessing in the highest degree the precious obstetrical and hæmostatic

properties that it has always been acknowledged Ergot possessed. The very different nature of the two products of Ergot, permits their easy separation, and we are enabled to obtain the remedy entirely free of the poison. Thus, then, does the oil of Ergot and Ergotine contain in themselves all the properties, whether medicinal or toxicological, of Ergot, and it was for this discovery that the Pharmaceutical Society of Paris honored Mr. Joseph Bonjean with a gold medal, at their meeting on the 21st of December, 1842. Ergotine has been generally considered as one of the most useful acquisitions that has for a long time enriched therapeutics. The good results that are obtained in affections against which medicine has frequently been ineffectual, has already spread its use in different regions of the globe, and every day practice confirms the marvelous properties that its author attributed to it from its first discovery. Ergotine is one of the most powerful specifics known against hemorrhages in general; it is equally approved of in metrorrhagia and bloody flux, in epistaxis, and in spitting and vomiting of blood, and hæmaturia, &c. It has also been employed with good results in cases of spermatorrhea, and in troublesome periodicals, vomitings of blood, and in diseases brought on by a deranged state of the nervous system, and that have resisted other remedies. Moreover, it promotes uterine contractions, and causes to cease the hemorrhages that succeed parturition; as well as prevents them when administered some time previous to this event. Ergotine presents an immense advantage over Ergot in the quantity that can be administered at discretion in a dose, without the fear of resulting in any of those accidents that are caused by Ergot taken in its natural state. Dr. Chevallay, professor of medicine in Chamberg, administered five drachms of this extract in the space of five hours to a woman who would infallibly have succumbed to a most terrible attack of metrorrhagia, if it had not been for this auxiliary, which in two days afterwards was completely suppressed, and the woman finally recovered. After this, many celebrated doctors have endeavored to extend the use of this remedy, and to this end Dr. Arne of the Paris asylums, has used it with happy effect in some chronic affections of the uterus. Drs. Sacchero and Teissier, professors of medicine in the University of Turin, Dr. Mosea, and some other practitioners connected with hospitals of the same capital, have used it with happy success in chronic and acute pain, from which we conclude that Ergotine has direct action on the mucous surfaces, when found in a state of super-excitation or active hyperemia; it is also useful in dry and obstinate coughs, with or without spitting of blood, which so often accompanies consumption. Dose from 20 gr. to 1 oz., according to circumstances—given in pills or solution.

Mode of Preparing Ergotine.—Powdered Ergot one pound, and as much water as it will absorb (cold water), and allow it to stand for twelve hours; then place in a porcelain or glass percolator, and pour over it successive portions of cold water, until the menstruum passes through the mass colorless; the liquid thus obtained is to be evaporated by means of a water bath, unto the consistence of an extract. This extract is the Ergotine of Bonjean.—[*Philad. Med. and Sur. JI.*

EDITORIAL AND MISCELLANY.

EPIDEMIC DYSENTERY.

"I would be very much obliged if you will give me your views of the pathology and treatment of Dysentery as it has prevailed in Georgia for some time. It is carrying off hundreds in this District."

The above extract from the letter of a friend who resides in Spartanburg District, S. C., is entitled to serious consideration. We do not know that we can throw any *new* light upon the subject of epidemic Dysentery, either in relation to its pathology or its treatment; nor are we aware of the mode of treatment under which such a frightful mortality as that alluded to by our correspondent has occurred. We do know, however, that many practitioners both in Georgia and in South Carolina, as well as in the adjacent States, entertain views of the pathology and treatment of the disease in question very widely at variance with our own; and we may add, that we have not found the disease very fatal, nor difficult to manage, when treated in accordance with the principles we approve. We will not hesitate, therefore to state, although we shall do so as briefly as possible, what we consider the true state of the system and the best plan of treatment in the *Epidemic Dysentery observed in this region of country* for a few years back. We are happy to say that we are not alone, and that among the many who entertain the same views with us may be found some of the most distinguished practitioners in the South and Southwest.

With regard, then, to the pathology of *this form* of dysentery, we think it a complication or modification of remittent fever, the *complication* constituting in some cases the *lesser* and in others the *greater* evil. The perturbations of innervation, and consequently of the circulation, which characterize our malarial or ordinary periodic fevers, may continue for some time without the manifestation of decided concentration of morbid action upon any organ in particular. These are, however, exceptional cases; and we find that, unless checked by remedial agents, some organ will, sooner or later, become implicated to such a degree as to mask the original affection and perhaps to mislead the inexperienced. Thus we may find the liver, the spleen, the stomach, the intestines (small or large), the brain, or the lungs taking on disease more or less readily, according to particular seasons, localities, or causes which escape detection or cannot be appreciated.

At one time the stomach and liver will be the organs most frequently the seat of this concentration of morbid action, and the distressing nausea and bilious vomiting be found exceedingly difficult to control. At another time the supervention of coma, or of delirium, reveals but too clearly that the brain is suffering the inroads of disease. Again, the recession of blood from the surface and extremities, and the impairment of the process of calorification, constituting the algid form of our fevers, is more common some years than others. Some eight or nine years ago we began to observe the pneumonic complication, which has continued ever since to show itself at various points throughout the Southern States in the form of *epidemic pneumonia*, and occasionally with remarkable fatality. During the last three years the tendency has been to the large intestines, and this dysenteric feature has proved exceedingly disastrous in some of our counties.

We are aware that some will, with our learned friend Dr. La Roche, object to this mixing up of diseases, and argue that Dysentery, as well as Pneumonia, is always an idiopathic phlegmasia, and should be treated upon the general principles termed antiphlogistic. Yet the history of medicine, as found in the writings of *practical* men, such as Sydenham, for example, does not permit us to doubt that diseases do from time to time change their phases, their type, and their amenableness to particular plans of treatment. While pneumonia, therefore, prior to the time above named, was most successfully treated here by blood letting and antimonials, such is far from being the case at present. So it is with Dysentery, which, when an uncomplicated phlegmasia, may be advantageously met with the lancet, calomel and opiates, under a different state of things proves rebellious to these agents.

The epidemic dysentery which has ravaged so fearfully some of our districts of country for the last few years, shows itself evidently as a complication of periodic fever, in the great majority of cases. It requires but little observation to detect in it the quotidian remissions and exacerbations peculiar to the class of fevers termed malarial, and the aggravation of the local affection by each returning paroxysm. As bloodletting will not cure remittent fever, so is it ineffectual in this form of dysentery, and may induce fatal prostration—while quinine, the great specific in periodic fevers will also prove all important in the epidemic dysentery to which we refer.

In the management of this disease, two objects must be kept in view; the daily paroxysms of fever must be arrested as soon as possible, and the determination to the large intestines subdued. In order

to accomplish the first purpose, we direct the administration for several successive mornings of 5 grs. quinine at day-break and at intervals of two hours until twenty grains be taken. We generally find that 20 grs. of this remedy during the remission, which usually occurs in the morning, is sufficient, and that the febrile exacerbations will be prevented in a day or two. The quinine should then be continued in smaller quantities a few days longer in order to prevent relapse.

The tormina, tenesmus, and bloody flux will yield more readily to saline cathartics than to anything else with which we are acquainted. Indeed, if a full dose of Sulphate of Magnesia or of Sulphate of Soda be given at the onset of the bloody discharges, or soon after, it will very often cut short the attack. If it does not, the saline should be continued in teaspoonful doses every two, three, or four hours so as to keep up the serous discharges until the fever may be arrested with quinine. The physician is, however, especially in the country, seldom called on to prescribe on the first day of the disease—and often only when the case has assumed a dangerous aspect. The patient is then found more or less prostrated by the fever, by the frequency of the bloody discharges and the distressing tenesmus. It may be then hazardous to administer a *full* dose of salts; but serous discharges may be induced by teaspoonful doses, given every hour, or less often, until the desired effect be secured. In short, the dysentery must be, by the use of salines, converted into diarrhœa and the serous stools be kept up as long as the dysentery seems disposed to return upon their subsidence.

There are instances, of which we have just seen one, in which the stomach is so irritable as to reject the salines above mentioned. Others, as Cream of Tartar, or Rochelle Salts, may be then substituted. We have used the chloride of sodium or common table salt in some cases with equal advantage, especially in the advanced stages of the disease, and in children who take it with less reluctance than they do Epsom salts.

We sometimes find that even after the fever has been subdued and the serous discharges kept up for one, two or three days, the irritability of the rectum will persist and seriously annoy the patient. It is under such circumstances that we order washing out the lower bowels with a pint of tepid flaxseed tea or tepid water, and throwing into the rectum with a small glass syringe a fourth or a half grain of Sulph. Morphia in a drachm of water, to be retained as long as possible. If this anodyne enema be returned before it has had time to

be beneficial, it should be repeated. Starch and Laudanum may be used for the same purpose. These local anodynes are often productive of the most delightful relief and composure ; but as their effect wears off they may have to be repeated.

It is scarcely necessary to add that we allow the patient to drink as freely as may be necessary to relieve his thirst either cold water (without ice) or any bland tea he may desire. When the case is protracted and exhaustion considerable, we order small quantities of good animal broth slightly thickened with flour to be given at regular intervals, even though the patient may have no appetite. This will generally be induced by the influence of a little such food upon the stomach.

The plan of treatment now laid down possesses, besides the advantage of marked efficacy, that also of great simplicity.

In answering the call made upon us for our views, we have done so in as few words as possible—and do not deem it necessary to allude more particularly than we have done to the opinions of those who differ with us, nor to fortify our position by special reference to the authority of those who participate with us in the views expressed.

Epilepsy cured by Trephining.—We find in the Transactions of the Iowa State Medical Society an extraordinary operation, reported by Dr. J. D. Elbert, under the following caption :—" *Case of Epilepsy of several years' standing cured by operation.*"

The cranium had been fractured, and six inches square depressed about one inch at the centre. This injury was soon followed by Epilepsy, which recurred every two or three days, had existed for eight years and impaired very much the mind and physical powers. Dr. Elbert trephined the patient, and " *six inches square* of the frontal and parietal bones were removed." The lad was eleven years of age, and has completely recovered. We should observe that the operation was performed in the spring of 1852, and the "report" made in January following.

The Virginia Stethoscope contains an able editorial article upon the subject of "Protection of Domestic Interests," in which after remarking upon the duty of every government to protect the various interests of the community, the writer goes on to show that in Virginia much more attention is given to the protection of pecuniary interests than of the health and lives of the citizens ; that while the Legislature

is ever awake to the interests of agriculture, commerce, the mechanic, arts, &c., little regard is paid to those of physicians. Thus :

"Now let us see how fully the legislature has applied these well established principles to the practice of medicine—how carefully they have protected the interests of a large and influential class of their constituents, the physicians of Virginia, and the dearest interests of every citizen of the state, their lives and reputations.

"The state is in want of money to support the expenses of government and construct works of internal improvement. She taxes various employments, and in return affords them adequate protection. The doctors, too, must be made to pay something into the treasury. To be sure he pays his poll tax, his horse tax, his carriage tax, his watch tax, &c. &c. &c., but he must pay in addition for the privilege of practising his profession, of obtaining a livelihood out of the community. The carpenter, the shoemaker, the blacksmith, the architect, &c. may derive larger profits from their business, but no *professional* tax is laid upon them. The doctor, I suppose, according to the ideas of the agrarians, is an aristocrat, and must be fleeced for the privilege. Well, the doctor pays his license tax, and what protection does he enjoy in return for his contribution to the resources of the state ? Why, the very first Yankee quack who comes along, an ignoramus and unprincipled swindler, who knows that there is nothing in regard to which the community is so easily duped and defrauded, applies to the same commissioner of the revenue for a license to speculate upon the lives, health and reputation of the community, and the officer is required by law to take the *price of blood* and put it into the treasury of the state. Aye, and the impudent foreign imposter will find even some of the press sufficiently venal to side with him against their own fellow-citizens. The foreign mercenary wretch who would have been arrested for exposing for sale in the streets a few papers of needles, a package of jack-knives, or a piece of calico, whose mouth would have been shut by the stern voice of the sheriff if he had dared to open it in a court-room, is fully authorized by law to tamper with the lives of unsuspecting and defenceless men, women and children. The foreign state doctor goes his rounds with no eye upon him to watch and expose his wanton sacrifice of life and health. Lucre is his only aim ; for that he sacrifices everything most dear to the community. At last, when some of his victims detect and expose his impostures, he decamps, carrying away a rich harvest of ill-gotten gains* to enrich other communities who despise us for our credulity, and laugh at us for our defenceless situation. By these persons the Virginia physician is elbowed out of the way to engage in some other employment, or seek some other place where his talents and learning will be better protected.

"These are not all the evils of the system. If the foreign pedler was a dangerous ally of the abolitionist, who so fit to carry on in the

* One of the most unprincipled quacks who ever infested this community, boasted that he had made upwards of twelve thousand dollars in Richmond in a few months.

dark his secret, nefarious schemes as the foreign quack doctor? He has unrestrained private interviews with our slaves, and what more fit opportunity for whispering the abolition sentiment and supplying the deadly draught? The license to practice includes also the license to peddle any sort of wares if he can only persuade the ignorant into the belief that they are useful in the treatment of disease. Let us examine how the law works in this respect. A fellow who is known only as a pedlar of trusses comes to the state of Virginia, and the law brings him to a stand. But the low cunning of the pedler is not to be so easily circumvented. He sees a fine rich field, but the gates are closed and well barred and the fence too high to be sealed. He examines the law and finds that it has provided a most convenient stile, as if just for his use, by which he may most easily climb the formidable barrier. He goes to the commissioner of the revenue, pays him five dollars, and receives the state's authority to practice medicine. This is the toll for entering the rich harvest field.

"Every patient who applies to him he discovers to be in need of a truss, and his is one of extraordinary quality. A patient applies with swelled testicles; the state doctor prescribes a truss; another has hydrocele, for which he is induced to buy a truss; another has varicocele, which he is easily convinced can be cured most readily by Dr. Wooden Nutmeg's patent truss, and so on and so on.

These are some of the abominations, the iniquities, the absurdities of the laws of Virginia in regard to the practice of medicine.

"Why, let me ask, has the state invested some thirty thousand dollars in a medical school in Richmond, besides making annual appropriations for medical education in other schools? Why does she appoint trustees to select well qualified teachers of medicine and to guard the title of M. D. against degradation by being conferred upon unworthy men, if it is her policy to confer every legal privilege of the diploma upon every foreign quack, ignoramus and imposter who may pay five dollars into the treasury? Do medical men intend always to submit tamely to this legalized outrage upon them? Let them at least make some well arranged, organized effort, and they will obtain some redress of their grievances."

An extraordinary case of Pin-Swallowing.—In September last, a girl at Vienna, who labored under an aberration of intellect, attempted to destroy her life by swallowing a quantity of pins. The first dose consisted of seventy, which she took one after the other, each pin being enveloped in a wafer; but in consequence of their smallness they passed away without doing any mischief. Subsequently she again took to swallowing pins of a larger size, some of them two inches long. She was then seized with such severe illness, that she was taken to the hospital of the town, when it was instantly detected what she was suffering from, and she was placed under a course of treatment, which had the effect of dislodging the whole of the pins in succession from the bowels. There were no less than 242 pins passed, all of them of a black colour. The girl is now in a fair way of recovery.—[*London Lancet*.]

Medical College of Atlanta.—The newspapers announce the appointment of the following gentlemen as Professors in the contemplated Medical College of Atlanta.

Horace Nelson, M. D., of New York, Professor of Anatomy.

John W. Jones, M. D., of Auburn, Alabama, Professor of Theory and Practice of Medicine.

Willis F. Westmoreland, formerly of this State, but for some time past resident at Paris, France, Professor of Surgery.

James M. Gordon, M. D., of Savannah, Georgia, Prof. of Surgery.

John S. Duval, M. D., of Texas, Professor of Chemistry.

R. A. T. Ridley, M. D., of Lagrange, Georgia, Professor of Physiology and Pathological Anatomy.

John G. Westmoreland, M. D., of Atlanta, Georgia, Professor of Materia Medica.

J. B. Calhoun, M. D., of Newnan, Georgia, Professor of Surgical Anatomy and Medical Jurisprudence.

Death of Dr. Waldo J. Burnett.—We perceive by the Boston papers, that our learned friend, Dr. Burnett, has finally yielded, in the the 26th year of his age, to the pulmonary affection under which he was laboring when he visited this city. As a microscopist, Dr. B. had few if any superiors. Quite enthusiastic in the pursuit of knowledge, he would have reached very soon the highest professional eminence had his life been spared. The death of such a man cannot be too much deplored.

Deaths by Chloroform.—Mrs. A. W. Richardson, of North Adams, Mass., died from the inhalation of chloroform, administered by Dr. C. E. Streeter, for the extraction of a tooth.

Also, Mrs. Jane Morgan, in the British Royal Infirmary, 21st Feb., 1854, died from the effects of inhaling chloroform for the reduction of a dislocation of the arm; death was sudden.

Dr. Beverly R. Wellford has been appointed Professor of Materia Medica, and Dr. B. Sequard Professor of Institutes and Medical Jurisprudence in the Medical College of Virginia.

Prof. N. S. Davis has become associated (in place of Prof. Herrick) with Dr. H. A. Johnson in the editorial management of the North-Western Medical and Surgical Journal; and Dr. A. B. Palmer with Dr. Andrews, in that of the Peninsular Medical Journal.

To the Editor Southern Med. and Surg. Journal:

Dear Sir—Having seen it intimated that facts ought to be collected in order to expose the absurdities of the Thompsonian system of practice—I have thought that the following, which came under my own observation, was perhaps too good to be lost:

In riding in the country, sometime since, I fell in company with a great, big club-fisted fellow, who had lately emerged from the plough handles, and looked as if he would make a noble axeman or blacksmith. He was called "Doctor"—was mounted, with his saddlebags pregnant with roots, and was going to see his patients. This "Doctor" had for a time quite a run of practice, and was considered *boss* at the business. The "Doctor," after a while, began to enquire of me, what could be the matter with his wife?—stating, in apparent surprise, that "she had been delivered of a child some weeks ago—had been very badly off ever since, and continued to get worse—was very low indeed, and had now become so offensive it was hardly possible to stay in the room where she was." After enquiring a little into her condition, the lamentable ignorance of this "Doctor" manifested itself in the fact, that his wife had never been fully delivered, and had for some weeks been suffering from a retained placenta, without his knowledge! Quere: Wonder if our late Legislature would not have licensed this "Doctor," too? "O tempora, O mores!"

Very respectfully, yours,

H. N*****.

WORKS RECEIVED.

The Transactions of the Iowa State Medical and Chirurgical Society, 3d and 4th sessions, held at Fairfield, May, 1852, and Davenport, June, 1853. This production indicates the onward tendency of the people of the far West, and is highly creditable to our pioneer professional brothers.

Indiana Medical Journal, a quarterly record of the Medical sciences of the South and West. Edited by W. H. BYFORD, M. D., Prof. of Practice in Evansville Medical College, and H. RONALD, M. D., Prof. of Anatomy in the same College. Published at Evansville.

The Georgia Blister and Critic, a monthly Journal. Edited by H. A. RAMSAY, M. D., published at Atlanta.

Annual Report of the City Inspector of the City of New York for the year 1853.

A large number of Pamphlets, College Circulars, &c.

On the new method of preserving Anatomical and Pathological Specimens. By JOHN H. BRINTON, M. D.—The preservation of the animal tissues, in such manner as to present unchanged, their normal and abnormal relations, has ever been an object of study and interest to the practical Anatomist, the Pathologist and the Surgeon. But as yet, all attempts to retain, in an unaltered state, the size, shape and color of parts, have to a certain degree been unsuccessful.

Anatomical objects have hitherto been preserved in one of two states, either wet or dried. Both of these methods are, however, inadequate; for if fresh animal tissues be immersed in alcohol, or any other antiseptic fluid, they become blanched in color, condensed in structure, and consequently modified in size and shape. At the same time, they present inconveniences for demonstration. The method of preparation by drying is open to even more serious objections, since the parts are so shrivelled and displaced as to convey but an imperfect idea of their primitive relations.

Now, since this shrinking of the tissues and their decomposition, depend most probably upon atmospheric influence, it recently occurred to me, that should I be able so to exclude the air as to cause all evaporation to cease, I would effectually prevent, not only the desiccation of the part, but also its decomposition. Acting upon this idea, I commenced a series of investigations; the success attendant upon which, up to the present time, has led me to submit the results to the profession.

My object being to encase hermetically every portion of the specimens, I selected for my earlier experiments a solution of gun cotton in ether, the ordinary collodion. By means of a brush, I applied this carefully upon every portion of the external surface of the object to be preserved. The ether quickly evaporating, a thin pellicle of the cotton was left, coating the entire preparation. This process was then repeated, and the preparation finished by the application of successive layers of damarra, copal and shellac varnishes.

But it early became evident to me, that collodion was entirely unfitted for the preservation of the generality of specimens, especially for those of any size and bulk. It possesses too slight a degree of tenacity, and is liable to become fissured, and to chip off; at the same time its tendency to form white opaque layers, when moisture is presented, renders it unsuitable as a transparent coating. I was, therefore, obliged to make use of some other protective material, and for this purpose I selected gutta percha. This I dissolved in benzole, adding at the same time to the solution a few grains of caoutchouc in order to increase the elasticity of the pellicle. By filtering the viscid dark-colored result through animal charcoal a perfectly colorless solution may be obtained, which upon application deposits a tenacious film.

This film, unlike that left by the evaporation of the ethereal portion of the collodion, evinces but little tendency to opacity; and, indeed, for all practical purposes, may be said to be perfectly transparent. The tenacity of the thinnest pellicle is very great; it possesses sufficient elasticity, is not liable to crack, and thus far has proven

amply sufficient to prevent the occurrence of evaporation, shrinking and decomposition. At the same time, by repeated applications of the solution, the coating of gutta percha can be increased to any desirable thickness.

To prepare a muscular specimen, as, for example, one exhibiting the relations of the arm and forearm, a limb should be selected which has been previously injected with the chloride of zinc, arsenic or other antiseptic solution. When the parts have been sufficiently exposed by dissection, the whole limb should be coated with the colorless solution of gutta percha: a transparent pellicle will then be left by the evaporation of the benzole. This process should be repeated until a layer of considerable thickness is obtained. Upon the muscular mass, the gutta percha may be applied in much greater quantity. Should opacity here result it matters little, as in consequence of the blanching of the muscle, dependent upon the previous antiseptic injection, an artificial coloring process will be necessitated. In preparations, however, of perfectly fresh muscles, or of those which have been injected with Horner's solution, this will not be the case. The layers of gutta percha having been obtained of sufficient thickness, it will be found desirable to apply next a coating of collodion, which has been filtered, and then mixed with Venice turpentine. This preparation possesses no contractile powers whatever, but is of great body and consistency. It splints, as it were the specimen securely, and ensures stability and firmness.

In order to impart a proper hue to those muscles, whose color may have been affected by the preceding processes, I make use of collodion stained with the wood of the *Pterocarpus santalinus*, (the ordinary red saunders.) The resulting color, when varnished, simulates closely that of fresh muscles. The specimen should then be completed by the application of damarra and copal varnishes. The adipose tissues, the tendons, fasciæ, nervous and cutaneous surfaces will present almost the appearance of a recent dissection; the muscle alone will possess an artificial color, and even this can be avoided.

Each specimen should be mounted on a board separately, and I have found the most convenient method for so doing, to consist in the preparation first of its dorsal surface. The object should then be placed upon the board; when the anterior surface, that intended for inspection and exhibition, can be finished in situ. I have also found it advisable to keep them covered by glass cases. The period required for the preparation and mounting of an object by the above process does not exceed five days.

I have now in my possession specimens of meat which have been preserved by the preceding method sixty days, without having been previously saturated by any antiseptic fluid. In one preparation which I examined, after removing the gutta percha coat at the expiration of forty-five days from its completion, no decomposition whatever had taken place. The fibres of the muscle were, however, somewhat blanched, and afforded a slight odor of the benzole used in the

preparation. Exposed to the air, decomposition ensued at the expiration of four or five days.

I have prepared, in a similar manner, a number of specimens, not only of muscular, but also of nervous tissues, as the brain and spinal marrow. In these no shrinking has occurred, and no evidence of decomposition exists. On the contrary, the preparations now present a harder, firmer and more natural appearance, than at the date of their completion. In the nervous preparations the natural color is retained, and is visible through the transparent coatings. I am at present engaged in making application of the process to the preservation of pathological tissues, and with every prospect of success. I believe also that botanical specimens may be preserved in a similar manner, and, indeed, it seems to me not impossible, that, at some future day an extension of this method may be rendered subservient to the preservation of meats, and all fresh animal tissues.

A longer period than has as yet elapsed, is required of course, to test fully the value of the above proceeding; at the same time the results already obtained seem to me so satisfactory, as to warrant me in laying them before the profession.—[*Medical Examiner*.

On the Venom of Serpents. By J. GILMAN, A. M., M. D., LL. D. There is much in the history and habits of the reptile tribes, however repulsive they may be in appearance, that is very interesting. During a sojourn of two or three months in the interior of Arkansas, which appears to me to be the paradise of reptiles, I paid some attention to that branch of natural history called ophiology: I found four distinct varieties of rattlesnakes (*Crotalus*), of which the *Crotalus Horridus* and *Crotalus Kirtlandii* are by far the most numerous. The former is the largest serpent in North America. The family of moccasin snakes (*Colluber*) is also quite numerous, there being not less than ten varieties, most of which are quite as venomous as the rattlesnake. By dissecting great numbers of different species I learned that the anatomical structure of the poisoning apparatus is similar in all the different varieties of venomous serpents. It consists of a strong frame work of bone, with its appropriate muscles in the upper part of the head, resembling and being in fact a pair of jaws, but externally to the jaws proper, and much stronger. To these is attached by a ginglymoid articulation, one or more moveable fangs on each side, just at the verge of the mouth, capable of being erected at pleasure. These fangs are very hard and sharp and crooked, like the claws of a cat, and hooking backwards, with a hollow from the base to near the point. I have occasionally seen a thin slit of bone divide this hollow, making two. At their base is found a small sac, containing two or three drops of venom which resembles thin honey. The sac is so connected with the cavity of the fang during its erection, that a slight upward pressure forces the venom into the fang at its base, and it makes its exit at a small slit or opening near the point, with considerable force; thus it is carried to the bottom of any wound made by the fang. Unless the fangs are erected for battle they lie concealed in the upper part of

the mouth, sunk between the external and internal jaw bones, somewhat like a pen-knife blade shut up in its handle, where they are covered by a fold of membrane which encloses them like a sheath; this is the *vagina dentis*. There can be no doubt but these fangs are frequently broken off or shed, as the head grows broader, to make room for new ones nearer the verge of the mouth; for, within the *vagina dentis* of a very large *crotalus horridus*, I found no less than five fangs on each side—in all stages of formation—the smallest in a half pulpy or cartilaginous state, the next something harder, the third still more perfect, and so on to the main, well-set, perfect fang. Each of these teeth had a well defined cavity like the main one. Three fangs on each side were frequently found in copper-heads, vipers, and others.

The process of robbing serpents of their venom is easily accomplished by the aid of chloroform, a few drops of which stupifies them. If, while they are under its influence, they are carefully seized by the neck, and the *vagina dentis* held out of the way by an assistant, with a pair of forceps, and the fang be erected and gently pressed upwards, the venom will be seen issuing from the fang and dropping from its point. It may then be absorbed by a bit of sponge, or caught in a vial, or on the point of a lancet. After robbing several serpents in this manner, they were found after two days to be as highly charged as ever with venom of equal intensity with that first taken.

During the process of robbing several species of serpents, I inoculated several small but vigorous and perfectly healthy vegetables, with the point of a lancet well charged with venom. The next day they were withered and dead, looking as though they had been scathed with lightning. In attempting to preserve a few drops of venom, for future experiments, in a small vial with two or three parts of alcohol, it was found in a short time to have lost its venomous properties. But after mixing the venom with aqua ammonia, or spirits turpentine, or oil of peppermint, or of cinnamon, or of cloves, or with nitric or sulphuric acid, it still seemed to act with undiminished energy. It is best preserved, however, for future use by trituration with refined sugar or sugar of milk.

A very fine large cotton-mouth snake, being captured by putting a shoe-string around him, became excessively ferocious, striking at even the crack of a small riding-whip. Finding himself a prisoner, without hope of escape, he turned his deadly weapons on his own body, striking repeatedly his well-charged fangs deeply into his flesh. Notwithstanding this, he was put in a small basket and carried forward. In one hour after he was found dead, and no amount of irritation could excite the least indication of life. Four hours after, while removing the skin for preservation, the blood oozed slowly from the vessels in a dissolved state. No violence was done to his snakeship, except what he did to himself.

Another moccasin, shot by a pistol about two inches back of the head, and skinned immediatly, gave decided evidence of vitality four hours after being flayed, by writhing the body whenever it was irritated by a scalpel.

A large rattle-snake beheaded instantly with a hoe, would, an hour and a half after, strike at any thing that pinched its tail. Of several persons who were testing their firmness of nerve, by trying to hold the hand steady while the serpent struck at it, not one could be found whose hand would not recoil in spite of his resolution, and one man, a great bully, by-the-by, was struck on the naked throat with considerable violence by the headless trunk of the serpent, and staggered back, fainted and fell, from terror. Mr. Stewart, of Miss., tells me he witnessed a similar scene once. An old hunter shot a rattle-snake's head off, and after reloading his gun and standing sometime, he stooped to pull off the rattles, and the bloody but headless trunk of the snake struck him in the temple and he fainted and fell down with terror.

Seven venomous serpents belonging to five different species were made to fraternize and dwell amicably in one den. A beautiful pair of long bodied speckled snakes, known as kingsnakes, and found to be fangless, and consequently without venom, were duly installed as members of the family. Some uneasiness was perceivable among the older members, but no attempt was made to destroy the intruders, though they might have been killed instantly. The next morning four of the venomous serpents were found to have been destroyed by the kingsnakes, and one was still within their coil, and the two remaining ones would make no effort at self defence. A large rattlesnake seemed stupid and indifferent to his fate. He could not be made to threaten or give warning even with his rattles. The smallest king-snake was afterwards inoculated with the poison of one of the serpents he had destroyed, and died immediately after—thus evincing that they must have exercised some power besides physical force to overcome their fellow-creatures.

In short, the results of a great number of experiments performed with the venom of a great variety of serpents, seem to lead to the following conclusions:

1st. That the venom of all serpents acts as a poison in a similar manner.

2d. That the venom of some varieties is far more active than that of others.

3d. That a variety of the colluber, known as the cottonmouth, is the most venomous serpent in Arkansas.

4th. That the venom of serpents destroys all forms of organized life, vegetable as well as animal.

5th. That alcohol, if brought in contact with the venom is, to a certain extent, an antidote.

6th. That serpents do possess the power of fascinating small animals and that this power is identical with mesmerism.

7th. That the blood of small animals, destroyed by the venom of serpents, bears a close resemblance to that of animals destroyed by lightning or hydrocyanic acid; it loses its power of coagulation and cannot be long kept from putrefaction.—[*St. Louis Medical and Surgical Journal*.

Puerperal Convulsions and Albuminuria. By MM. DEPAUL and MASCARET.—M. Depaul has read an able report upon a very instructive memoir by M. Mascaret, to the Académie de Médecine, upon this important subject. The author divides the cause of eclampsia into predisposing and occasional. He regards as special predisposing causes, first labours, the sanguineous and lymphatico-sanguineous temperaments, infiltration of the legs; but he does not consider albuminuria, and in this M. Depaul confirms the views of the author, as an essential cause of the disease. M. Depaul cited three cases of puerperal convulsion, in which no trace of albumen could be discovered in the urine; one which had occurred in his own practice, one recorded by Dr. Leuer, and a third by Professor Dubois. Two additional cases are recorded in M. Mascaret's memoir. M. Depaul again refers to the frequency of albumen in the urine of pregnant women, and the comparative and absolute rarity of convulsions. Out of 41 women in whom the urine was found albuminous, observed by Dr. Blot at the Maternity, only 7 were seized with eclampsia. In order to collect these 41 cases, he examined the urine of 205 women, taken indiscriminately from the wards of the hospital. Further, M. Depaul cites two cases, in which, having examined the urine before labour without finding any albumen present, convulsions broke out, and the urine was found to contain albumen after the second fit in the first case, and after the fourth fit in the other case. M. Depaul also observed that the albumen disappears with remarkable rapidity after delivery, whilst not seldom convulsions only appear some hours or even some days after parturition. The reporters, however, admitted that albuminuria was too frequently observed in the course of gestation, and coincided too frequently with puerperal convulsions, not to render the investigation, of the relation of these conditions necessary. M. Depaul observed that the common explanation of albuminuria in pregnant women was not to be found in inflammation of the kidney. In the autopsies he had made, the kidneys were found either perfectly healthy, or simply congested. The true point of departure he believes to be, the modifications that gestation caused in the blood.—*L'Union Méd. British and Foreign Medico-Chirurgical Review.*

Fever, Intermittent.—Dr. Harting (Schmidt's Jahrb., 1853, ix.) has employed quinoidine with alcohol and sulphuric ether in ague, and, from twelve year's experience, states that it is superior to common quinine. He considers the quinoidine to be an amorphous quinine, (an opinion which has been strongly opposed by Muller.)

Dr. Castiglioni (Schmidt's Jahrb., 1853, ix.) has used the tannate of cinchona; it requires to be given in larger doses than quinine, but is much less expensive.—[*Ib.*

Cataract.—M. Lopez (Bull. Gén. de Thérap., 1854, ii. p. 89) has employed with advantage iodide of potassium taken internally, and vesication on the temples, in cataract. The treatment was persevered in for five or six months, and in 3 cases out of 4 was productive of great benefit.—[*Ib.*

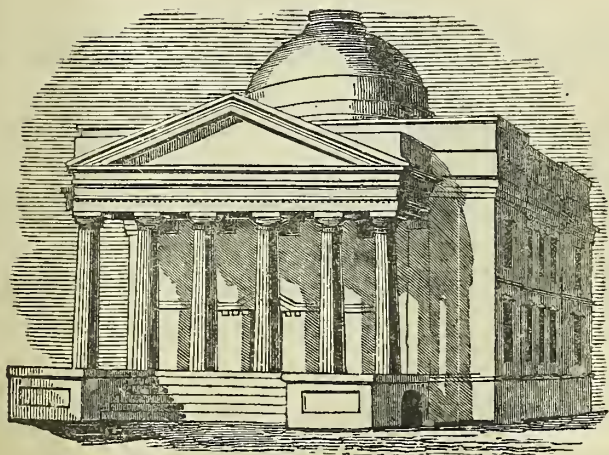
TWENTY-THIRD

ANNUAL ANNOUNCEMENT

OF THE

MEDICAL COLLEGE OF GEORGIA.

AUGUSTA.



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1854.

FACULTY
OF THE
Medical College of Georgia.

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PROFESSOR OF ANATOMY, GENERAL AND DESCRIPTIVE.

L. A. DUGAS, M. D.,
PROFESSOR OF THE PRINCIPLES AND PRACTICE OF SURGERY.

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PROFESSOR OF PHYSIOLOGY AND PATHOLOGICAL ANATOMY.

J. A. EVE, M. D.,
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PROFESSOR OF COMPARATIVE AND MICROSCOPIC ANATOMY.

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Hon. A. J. MILLER, President of the Board of Trustees.
Ex-Gov. WM. SCHLEY, Vice-President.
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ANNUAL ANNOUNCEMENT.

The TWENTY-THIRD COURSE OF LECTURES in the Medical College of Georgia will commence on the first Monday in November next, with a general Introductory by Professor HENRY F. CAMPBELL.

It affords the Trustees great pleasure to announce to the Medical Profession, and the public generally, that the Institution is still in a highly prosperous condition. Encouraged by past success, and grateful for the continued confidence and support of the profession, they are determined to spare no effort to sustain the high character the College has already acquired. To keep pace with the rapid progress of the Medical Sciences they have made numerous and valuable additions to their means for demonstrative teaching in all the departments, and they have created a new Professorship of Comparative and Microscopic Anatomy, which has been assigned to Dr. HENRY F. CAMPBELL, a gentleman well known to the medical public as one of the ablest Anatomists in the Country. For this important addition to the regular course, no additional charge will be made.

The Trustees feel no hesitation in declaring that as thorough a Medical education can be obtained in the Medical College of Georgia as in any similar institution in our country, and one far better adapted to the wants of the Southern practitioners, than in any Northern College. They ask with confidence, therefore, the continued support of the Southern Medical public.

The branches taught in this Institution, are:

ANATOMY.

BY GEORGE M. NEWTON, M. D.

The lectures on this branch will describe minutely the various parts of the human organism—their intimate structure, and their relations to each other and to practical purposes. The entire course will be illustrated by recent dissections, anatomical preparations, models, plates, and diagrams.

PHYSIOLOGY AND PATHOLOGICAL ANATOMY.

BY H. V. M. MILLER, M. D.

It is generally admitted, that the phenomena of disease cannot be interpreted with any probability of correctness, nor remedies applied with any reasonable expectation of success, without a thorough acquaintance with the normal action of the system. It will be the object, therefore, of the Professor of Physiology to bring to the notice of the class a full consideration of the elements entering into the formation of living tissues; the development, structure and action of these, in their primary forms, and the functions of the various organs of the body—keeping in view, throughout the course, the practical ends of professional study, and passing lightly by the numerous speculations which crowd the pages of writers on this department. Those *facts* and objects of investigation which will be most beneficial to the practitioner will receive the fullest and most faithful attention.

As morbid action is most easily comprehended when studied in connexion with the healthy, of which it is but a perversion, the study of Pathological Anatomy not unnaturally connects itself with the Physiological course. The changes in the living organism, induced by disease, will be traced to their origin in the original elements, or the primary tissues of the body; and the mode of formation, the classification, and description of morbid specimens will be as fully treated as the length of the term will permit.

Both of these branches will be illustrated by drawings, diagrams, specimens, &c., in such manner as greatly to facilitate the comprehension of the student.

COMPARATIVE AND MICROSCOPIC ANATOMY.

BY H. F. CAMPBELL, M. D.

This course will consist of a series of lectures giving a general, but sufficiently complete review, of the various orders in the zoological scale, to enable the student to obtain a know-

ledge of the transcendental or philosophical anatomy of the various organs in the human being. In addition to the knowledge of comparative anatomy which the student will thus obtain, this branch will be found to assist him very materially in his study of human anatomy, by bringing in review before him the various organs as they occur in their simplest forms in the lower orders, till finally they have attained their greatest perfection in the more complicated structure of the human frame.

In this course, the lecturer will endeavor to make his teachings as much as possible subservient to the simplifying of the study of Human Anatomy, and thus this last study, instead of being a mere labor to the memory, will become enlivened by the contemplation of beautiful correspondencies between the organs which will universally present themselves for the contemplation of the student.

The course on Microscopic Anatomy will be illustrated principally by large painted diagrams, and also on the black-board; but when time will allow, opportunity will be afforded the Class of seeing the objects treated of through the Microscope. This opportunity will be frequent even to every member of a large class, as our Institution is well supplied with fine instruments—there being six in the College, some, the work of the very best makers in the world.

SURGERY.

BY L. A. DUGAS, M. D.

The Professor of Surgery arranges the studies of his Department under five distinct heads or classes, of which the following is a very brief epitome:

The 1st class comprehends the *Diseases which occur spontaneously*, or such as are induced by causes more or less unknown. This class is subdivided into five orders, thus:—

Order 1. *Inflammatory affections*—to wit: Inflammation, its phenomena and terminations in resolution, adhesion, effusion, suppuration, ulceration and mortification; furuncles; whit-

lows; abscesses, both acute and chronic, of various parts of the body; ulcers of all kinds; gangrene; carbuncle; erysipelas; scrofula; diseases of the bones and joints, &c., &c. Order 2. *Morbid Productions*.—Tumors of all kinds: ganglions, glandular, bronchocele, lipoma, fibrous, nervous, polypi, encysted, malignant. Order 3. *Lesions of Blood-vessels*.—Aneurism, Aneurism by anastomosis, nævus, varicose veins, hemorrhoids. Order 4. *Displacements*: prolapsus ani, prolapsus uteri, hernia. Order 5. *Congenital Deformities*, such as may require surgical treatment: club-foot, contracted or webbed fingers and toes, spina bifida, imperforate anus or vagina, hare-lip, cleft palate, &c.

The 2d class includes the *Diseases induced by special irritants*, to wit: 1, by *Animal Poisons*—syphilis, gonorrhœa, glanders, malignant pustule, bite of venomous reptiles and insects, hydrophobia, dissecting wounds. 2, by *Chemical agents*. 3, by *Caloric*. 4, by *Cold*.

The 3d class contains the *Diseases induced by external violence*: as 1. Concussion; 2. Contusions; 3. Wounds—incised, punctured, lacerated, gun-shot; 4. Tetanus; 5. Fractures, in general and in particular; 6. Sprains; 7. Dislocations, in general and in particular; 8. Foreign substances introduced into the eye, ear, nostrils, pharynx, esophagus, larynx, trachea, urethra, vagina, rectum, &c.

The 4th class comprehends the *Diseases of special apparatuses*—as Diseases of the Eye and its appendages; Diseases of the Ear; Diseases of the Genito-urinary apparatus.

Finally, the 5th class refers to *Operative Surgery*—in the study of which no pains are spared to demonstrate and make familiar to the student all the details of minor surgery as well as all the operations that may be performed upon the dead subject.

During the session the Class will have the opportunity of witnessing as many operations as the combined efforts of the Faculty may be able to bring before them.

CHEMISTRY AND PHARMACY.

BY ALEXANDER MEANS, M. D.

To facilitate the acquisition of knowledge in this interesting department of a medical education, an extensive Philosophical and Chemical Apparatus is at the disposition of the Professor. Many of the most important instruments have been selected under his own eye, or prepared to order—some of them, never before constructed; and the entire collection, embracing articles of the latest patterns and finest model, manufactured by the most approved makers in Paris, Boston, New York and Philadelphia.

The laws of PNEUMATICS are illustrated extensively both in their relation to Philosophy and Chemistry, by one of Chamberlain and Ritchie's magnificent *Lever Air-pumps*, accompanied by an imposing series of appendages, all made available in simplifying the principles involved, and bringing them clearly to the apprehension of even novitiates in the science.

A beautiful finished ELECTRICAL MACHINE, mounted upon a cruciform, rose-wood frame, 8 feet long, and 4 feet high, with a French Glass plate, 32 inches in diameter, supplies an abundant current for the boldest and most brilliant experiments in the Science of Electricity.

The phenomena of ELECTRO-MAGNETISM, and MAGNETO-ELECTRICITY, now so intimately connected with the most recent researches of Matteucci, Zantedeschi, and Favio in Electro-physiology, are exhibited by many pieces of new, delicate and striking Apparatus, and the principle taught, made applicable, as far as the present advancement of science authorizes, to the laws and phenomena of organic matter.

A large GROVE'S BATTERY, consisting of from 24 to 48 pairs of zinc and platinum, furnishes to the Professor, the best arrangement for a rigorous and constant Galvanic current yet known to Chemistry.

The COURSE, will consecutively embrace:

1st. The *Imponderable substances*, i. e., Light, Heat, Electri-

city, Galvanism, and Magnetism, with their various combinations.

2d. *Inorganic Chemistry*, preceded by experimental illustrations of the laws of *Chemical Affinity and Specific Gravity*, together with an explanation of the *Chemical Nomenclature, Chemical Symbols, &c.* Its natural division being:—

(1.) The *non-metallic* elements—gaseous, fluid, and solid.

(2.) The *metallic elements*.

The *simple substances* being known, next follow their *combinations*, embracing the whole range of *Salts* used in Medicine, the Arts, &c.

3d. *Organic Chemistry*, mainly with reference to the constituents of the various solids and fluids of the human body, and to the chemical changes going on under the laws of life. Under this head may be classed the Chemistry of *Animal Heat, Vital Force, Respiration*, and the *sanguiferous circulation*, all of which will command the special attention of the Lecturer.

According to the order most approved, the PHARMACY of the course is blended with the disposition of the simple and compound bodies exhibited:—the *mode of preparation*, coming in most appropriately, with these details.

INSTITUTES AND PRACTICE OF MEDICINE.

BY L. D. FORD, M. D.

The Professor of the Institutes and Practice of Medicine, commences his course with a general survey of the human body, leading to the view of its composition of a collection of organs. These organs examined in the physical, chemical and vital habitudes of their elementary tissues, under the guidance of Analytical Anatomy, leads to a high and due estimate of this science, in the study of critical pathology. The functions of life resulting only from the action of these organs, the mechanism of these *normal* vital actions is examined and analysed, so far as can be done, by physical science—this knowledge indispensable to the understanding of the abnormal actions.

Some of the more prominent subjects of General Pathology examined—

DISEASE—Its nature, deduced by consideration of its characters, its physical and functional symptoms—the disordered state and the disordered acts forming two indispensable elements of disease.

SYMPTOMATOLOGY AND SEMEIOLOGY.—Symptoms—What they are—how they come—their use—physical and functional, their relative value—their observation—their interpretation into signs.

DIAGNOSIS. Its value—its methods, &c. *Prognosis, Nosology, Etiology, &c.*

The examination of these subjects presenting the opportunity of establishing the general principles of a sound medical philosophy, according to the organic school of medicine.

In the study of individual diseases, they are arranged in 5 general divisions:

I. Fevers—1. Ephemeral fever. 2. Paroxysmal, Intermittent and Remittent—with variations. 3. Yellow fever. 4. Continued fevers—*a.* simple. *b.* Typhus and Typhoid.

II. Diseases of the Brain and Nervous System—preceded by physiological considerations.

III. Diseases of the Chest—of the Heart and Lungs, and of their appendages—preceded by the full development of the method of physical exploration, by mensuration, auscultation and percussion simple and stethoscopic.

IV. Diseases of the Abdomen.

V. Diseases of the Skin, &c.

These diseases are studied with the end of obtaining as critical a knowledge of their pathology as the present state of the science affords, as the best basis for their successful treatment: Hence advantage is taken of the Plates of the best writers on Pathological Anatomy and Special Pathology, with which the College Library is so amply furnished; as also, of those valuable, plastic, colored pathological preparations, which grace the College Museum.

OBSTETRICS AND DISEASES OF WOMEN AND INFANTS.

BY JOSEPH A. EVE, M. D.

The Professor of Obstetrics and Diseases of Women and Infants divides his course of lectures into four parts :

The first consists of the peculiar Anatomy and Physiology of the female system, except parturition, which constitutes the second part.

After a full description of the bony pelvis and foetal cranium and all the organs concerned in the process of parturition, menstruation and all its disorders are considered, in detail. The various stages of development of the gravid uterus and evolution of the embryo and foetus are illustrated by two series of beautiful models, which are most life-like and true to nature, one of wax and the other of papier maché. The symptoms and signs of Pregnancy are carefully explained, as well as the diseases incident to that state.

In the *second part*, after treating of the process of parturition and the conduct of the accoucheur, and the assistance to be rendered during labour, its mechanism in all the various presentations and positions, and all obstetric manœuvres and operations are plainly demonstrated on the manikin. All the impediments and complications that may render labour tedious, difficult or dangerous, are thoroughly considered; after which, attention is directed to the management of the puerperal state and the diseases peculiar to it.

The third division, consists of lectures on the most important affections peculiar to females—such as, the various displacements of the Uterus and the structural diseases of that organ, malignant and non-malignant, most of which are illustrated by a very valuable set of models, carefully selected by Professor DUGAS, while on his last visit to Paris, and also by elegant Plates and morbid specimens from the College museum. All the instruments required in the treatment of these maladies are exhibited to the Class and their use explained.

The last division comprises lectures on Infantile Diseases,

principally those that are congenital or that occur during the first few months.

MATERIA MEDICA, THERAPEUTICS & MEDICAL JURISPRUDENCE.

BY I. P. GARVIN, M. D.

In this Course the general principles upon which the action and application of the various medicinal agents depend are fully examined. The botanical relations, chemical constitution, and therapeutic application of each article of the *Materia Medica* is fully explained, and specimens of each exhibited to the Class. The course on Medical Jurisprudence will present a full notice of the medico-legal questions connected with Legitimacy, Impotence, Sterility, Rape, Pregnancy, Delivery, Insanity, Wounds, and other subjects belonging to this department of knowledge.

PRACTICAL ANATOMY.

Arrangements have been made for a sufficient supply of material, and this department is under the charge of the Demonstrator of Anatomy, ROBERT CAMPBELL, M. D., for several years past the Assistant Demonstrator in this College.

CLINICAL INSTRUCTION.

The Class have free access to the City Hospital, which is under the charge of the Faculty. Clinical Lectures are delivered in the Hospital twice a week. In addition to this, all the cases of interest in the Jackson-street Hospital, under the charge of the Drs. CAMPBELL, and in the Infirmary of Prof. DUGAS, will be brought to the notice of the Class. Students who may desire practical instruction in Obstetrics, will find ample opportunities among our large colored population, and the Professor of Obstetrics, in every such case, will superintend, and give the pupil practical instruction.

No extra charge is made for Clinical instruction.

COLLEGE LIBRARY.

The library consists of over three thousand five hundred volumes of the most valuable and latest works on the various departments of medical science, besides beautiful plates, diagrams, &c., &c.

MUSEUM.

The COLLEGE MUSEUM is one of the most extensive, interesting and valuable in the United States; and is continually receiving new contributions. In order to convey some idea of its value to the student, we will merely enumerate the following objects it contains:

A number of articulated and disarticulated skeletons; numerous preparations of the cranial and facial bones connected and disconnected.

Several complete series of disarticulated foetal bones, arranged in frames.

A number of articulated skeletons of deformed individuals.

Complete series of pelves, normal and deformed, for obstetrical study.

Large collection of diseased bones, illustrating the various affections of the osseous system.

A collection of 80 specimens, natural and artificial, illustrative of craniology.

Complete series of foetal crania.

A series of foetal skeletons exhibiting the condition of the osseous system at twelve different periods.

A series of 12 preparations showing the process of dentition at all ages.

A series of preparations of the distinct vertebræ and of the vertebral column, showing the human and comparative anatomy, internal conformation and osteology of these bones.

Entire skeletons of the principal divisions of vertebrated animals; for the study of comparative anatomy.

The skeleton of a foetal acephalous monster.

Auzoux's Adult Clastic Anatomy, being a preparation of full adult size, made of *papier maché*, and representing a complete dissection of every portion of the body, muscles, blood-vessels, nerves, brain, and spinal marrow; thoracic, abdominal and pelvic viscera; organs of the senses, &c.; the whole so constructed that its minutest subdivisions may be taken asunder and again put together.

Azoux's Magnified Clastic Anatomy of the Head and Neck—this preparation being made very large for purposes of demonstration.

Models exhibiting the minute distribution of the vascular and nervous systems of the head.

Model showing the minute distribution of nerves within the orbit.

Separate models of all the viscera, the eye and the ear.

A series of beautiful Wax preparations by the best French artists, exhibiting the muscular, vascular, nervous, splanchnic, and sensorial organs. Also, one of the Fœtus, in which the peculiarities of foetal circulation are displayed.

Models of the Brain, large and small—and also of the cerebro-spinal axis.

Preparations of the lymphatico-chyliferous system.

An extensive series of preparations of the natural subjects, dry and wet, consisting of complete dissections illustrative of all the ligaments, muscles, heart, arteries and veins, brain, spinal marrow and nerves, membranes of the cranial and vertebral cavities; &c.

Carteaux splendid series of Models illustrating Surgical Anatomy.

A complete series, preserved in alcohol, shewing the development of the embryo from the earliest moment to the full period of utero-gestation, embracing at least twenty distinct periods.

Auzoux's extensive series of Ovological preparations, exhibiting the development of the embryo, its membranes, and the womb at each month of utero-gestation.

Another series, by Guy, shewing also the development as well as the relative positions of the pelvic organs and the changes of the os tincæ at all periods prior to and during parturition.

Auzoux's Clastic Anatomy of the female pelvis and pelvic organs.

Models of the male and female genito-urinary apparatus.

Obstetrical mannikins.

Specimens illustrating morbid conditions of the foetal life.

Collection of Parasitic worms.

A beautiful series of 42 models in enamel, exhibiting the various diseases of the eye.

Numerous preparations in alcohol, illustrative of Morbid Anatomy.

A dry preparation, in which all the thoracic and abdominal viscera were found to be transposed.

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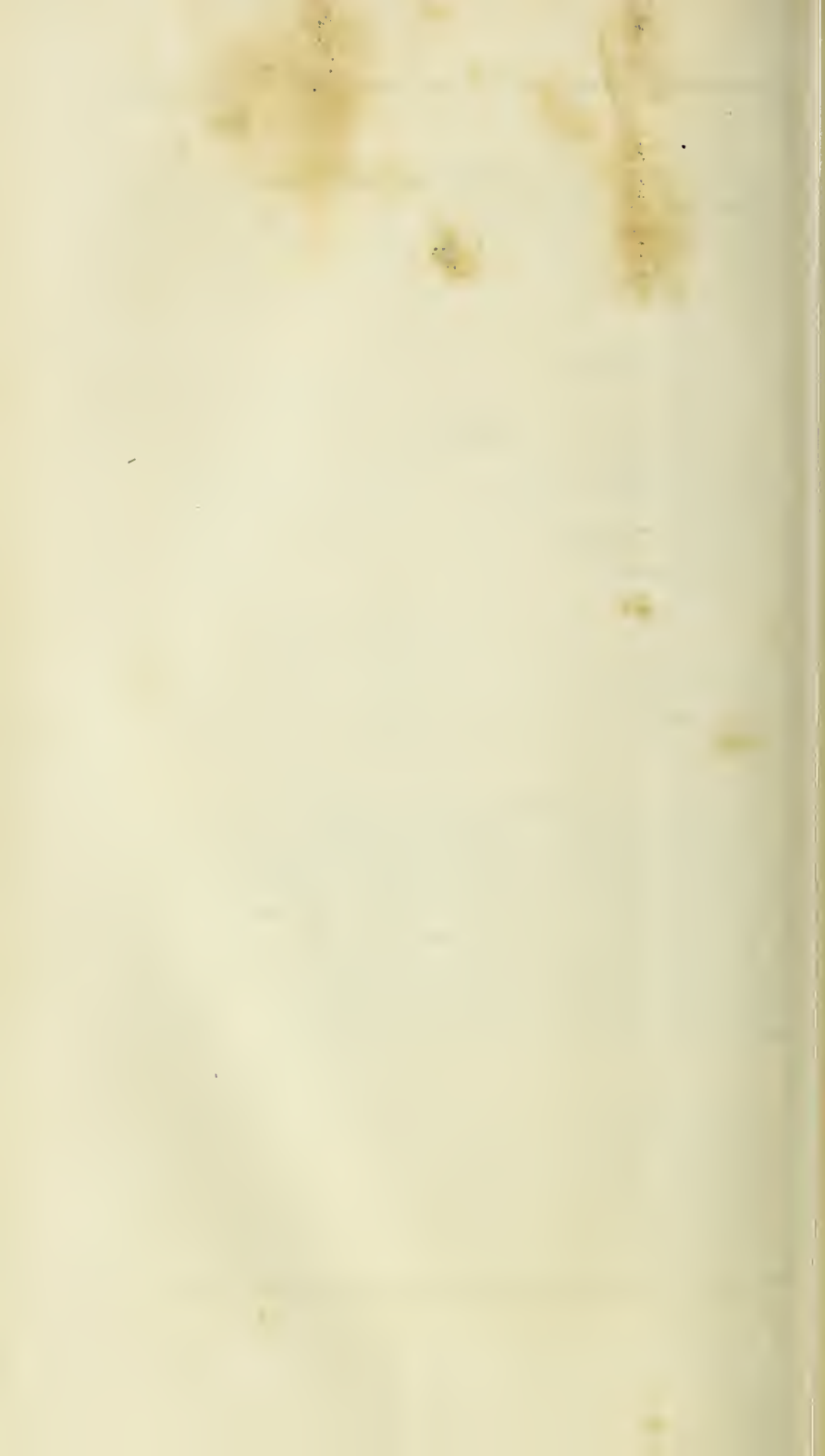
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A. J. MILLER,
President Board of Trustees.

AUGUSTA, GA., July, 1854.



SOUTHERN MEDICAL AND SURGICAL JOURNAL.

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ORIGINAL AND ECLECTIC.

ARTICLE XXVII.

On Epidemic Dysentery. By Z. P. LANDRUM, M. D., of Lexington, Georgia.

When we consider the general prevalence of this disease, its frequent obstinacy under all plans of treatment, and its fearful mortality in certain localities, it would seem to demand the earnest and patient investigation of all philanthropic physicians. As an epidemic in Georgia for the last few years, we know of no disease that has prevailed among us with bounds as wide or mortality as great; frequently selecting for its ravages those, who, in the pride of manhood, boast of their vigour of constitution; at other times, attacking the infant at the breast—the child at its sports—the young man or lady of temperate habits, and the old man or woman tottering under the infirmities of age. Thus it has prevailed, without regard to age, sex, or constitution. We have known of instances of individuals whose vigour of constitution and general habits of temperance, had defied the onsets of the ordinary causes of disease, who, when attacked by this epidemic, have sunk with fearful rapidity, dying in a few days from the commencement of the attack. Could its causes be ascertained, thereby affording opportunity to avoid its attacks, or remedying its effects, a great end would be attained. That its origin is atmospheric, we do not doubt;

but whether it be identical with the cause of malarious fevers, we think admits of many doubts. In malarious districts dysentery may occur, and occur also in conjunction with remittent or intermittent fevers, prevailing in the same subject, at the same time, mutually aggravating each other. When prevailing in such localities, and in such alone, we may be justified in assigning for its cause, that state of the atmosphere brought about by the decomposition of animal and vegetable matters. This, however, we would doubt exceedingly, if the disease assumed such unvarying features in its incipient stage as has been noticed by us in the present epidemic. As an objection to this malarious origin of the present epidemic, we would offer the extent of country and variety of climate over which, and in which, it has prevailed. Next, we would remark, that the disease has prevailed with undoubted malignancy at places and in localities where malarious fevers rarely ever did, and have not made their appearance at all for a number of years. Lastly, we would object to identifying in cause a local phlegmasia, beginning as such, with malarious fevers, whose first symptoms are peculiar to themselves—especially so, when we find that dysentery, taken in its incipency, is frequently relieved by active stimulants, which is rarely the case with malarious fevers,—these almost invariably demanding from the judicious practitioner the free administration of quinine, from the use of which we have scarcely derived benefit in the treatment of dysentery.

Symptoms.—Every case in the treatment of which we have had an opportunity of seeing at the outset, has begun as a local disease, with tormina, tenesmus, and frequent discharges of mucous or muco-sanguinolent matter, sometimes mixed with the natural contents of the bowels. This has not only been the case, but we have seen this state of things continue for days, and sometimes a week, without involving disturbance, but little, if any, of the general circulation; the pulse remaining of moderate frequency, of ordinary volume and rhythm; the skin discharging its functions without unusual heat, and the tongue clean and moist. This, however, has occurred in the mildest cases, such as were not amenable to treatment. In cases of marked severity, but a short period elapses before the func-

tions of the heart and circulatory organs are sympathetically involved; the pulse increases in force and frequency, ranging from one hundred to one hundred and twenty; the skin becomes hot and dry, abdomen excessively so; tongue red about its edges, slightly furred and dry, and urine high-colored and scanty. In other cases, when the inflammatory action has involved a larger extent of bowel, extending through the small intestines to the stomach, there has been prostration of the vital forces—those pertaining more particularly to organic life from the commencement—attended with a quick, feeble pulse, and coolness of the surface. We have seen this enfeebled action of the heart and extremities to such an extent as to render the pulse scarcely perceptible at the wrist; the hands and feet of an icy coldness, when there was sufficient strength in the voluntary muscles for the patient to spring up in bed.

In a patient, under the treatment of a brother practitioner in this village, we learn that this was the case to such a surprising extent, that the patient, but five minutes before his death, sprung from his back, and getting on his hands and knees, died in this position.*

Cases of this kind appear to bid defiance to our best directed efforts, and ride in unmolested sway until its ravages are complete. When the fever runs high, without this prostration, from the commencement, there is frequently light delirium; if it continues its course, unchecked in its ravages, the peristaltic movements of the bowels, when not under the influence of quieting remedies, become more disturbed, the discharges more frequent, consisting of blood and vitiated mucus, with colored serum and pus, sometimes mixed with fibrinous matter, or shreds of the lining membrane of the bowel. The discharges now become exceedingly offensive, sometimes so much so as to impregnate the air of the whole room. In children, we have noticed a protrusion of the rectum, fissured and swollen to an enormous extent. As the patient merges into this condition, there is rapid emaciation, with hollow cheeks, eyes deeply sunk in their sockets, the upper lid appearing as though it was pressed on the ball; coldness of the extremities; pulse scarcely perceptible; clammy perspiration about the face and neck; jactitation, sighing, hiccough, involuntary dischar-

ges, and death. This is the ordinary course of the disease, if not arrested.

Pathology.—We agree entirely with the views entertained by Sir G. Bellengal, and expressed in the June No. of this Journal by Dr. D. C. O’Keeffe, of the pathology of this disease: that it is an idiopathic phlegmasia, situated most usually in the descending and transverse colon, but at other times involving the whole length of the alimentary canal. We are very far from admitting the causative influence formerly ascribed to hepatic congestion by high authority. Though we readily admit that this organ is sometimes involved to such an extent as to aggravate the disease, if not relieved.

Treatment. Bloodletting.—This is the great remedy with which destructive inflammations, such as exist in this disease, in our judgment, should be controlled; we can, however, readily imagine cases—indeed we have seen such—in which it could not be used to any considerable extent with safety. Persons attacked, whose force of constitution has been impaired by chronic disease or intemperate habits, especially habits of drunkenness, would be liable to fatal prostration, if subjected to the use of this remedy to a sufficient extent to produce a decided impression on the system. But in robust constitutions, before the vires vitæ have evidently given away under its ravages, we have no doubt that nine cases out of ten may be relieved by the decided and judicious use of bloodletting, both local and general; and when we recommend bloodletting, we do not recommend it to the hands of the over-cautious and timid practitioner, who is governed in the abstraction of blood by a certain number of ounces—because, if used in this way, without impressing the system with its peculiar effects, it will invariably aggravate the disease. Unless the bleeding is carried to a sufficient extent to make a decided impression on the congested capillaries, the heart, freed from the over supply of blood accumulated in its larger vessels, will rebound with such force as to increase the very obstacle we intended to remove. We would say bleed then, without regard to quantity, in the cases specified, until symptoms of decided syncope appear, and after the

free use of cups or leeches in the course of the colon, should the local symptoms return, bleed again and again, until they are to some considerable extent subdued.

We remember the case of a robust negro man, from whom we abstracted blood, in the sitting posture, to the extent of a half gallon, and then had to make him stand erect before the desired result was obtained. The result was, that although the attack was violent, his symptoms were so much abated, that after the free use of cups next morning, we dismissed him convalescent.

In the treatment of the disease in children, where there are no decided symptoms of worms, after the contents of the bowels have been evacuated by castor oil mixed with laudanum, the proportions depending on the age of the child, we have found that cold water injections with a large syringe entirely supercedes the necessity of bloodletting: indeed, we doubt not that such would be the case with adults, if timely used. Our plan is, to have a large bucket of fresh well or spring water prepared, the patient placed across the lap of an assistant, and syringe-full after syringe-full injected into the bowel until all the pain is relieved and the bowel quieted. This may require some fifteen or twenty minutes, and will be indicated by the diminished force with which the bowel ejects the water after it has been injected. The patient is then put into a large tub of warm water, prepared whilst the injecting process was going on, and suffered to remain with a blanket thrown around the shoulders, until full perspiration is established. Taken from the water, the patient must be wiped dry, a teaspoonful of laudanum rubbed over the bowels, and a thick folded blanket or flannel, wrung out of hot water, applied,—this to be changed for a fresh piece as it becomes cold. Should the discharges return in the course of seven or eight hours, the same course is to be adopted again.

Purgatives.—When the disease has not been followed by diarrhœa, for the purpose of evacuating the fæcal matter of the intestines, we would invariably give a mild purgative of some kind, preferring for this purpose castor oil, in doses of a table-spoonful for an adult, with twenty-five drops of laudanum. After we have once secured the thorough evacuation of fecal

matter from the bowels we have no farther use for cathartics. They are recommended by some after this, to effect the evacuations of morbid secretions. We would remark, on this point, that we do not believe in the irritable nature of any secretion to the surface secreting it. That vitiated bile will irritate a healthy mucous membrane—that urine harmless to the mucous membrane of the bladder, will irritate the skin or mucous membrane of the intestine, we do not doubt; but that vitiated mucus secreted by an inflamed intestine, is irritating to the part secreting it, we do doubt exceedingly. We believe that the vitality of the part is so modified by the inflammation as to be adapted to the nature of the secretion poured out from its surface; and when we say vitality, we use no unmeaning phrase,—we mean the sensibility, irritability, vital affinity, &c., of the part. Entertaining these views of the nature of the secretions and satisfied of the irritating effects of most cathartics, we have used them heretofore only with the view of relieving the bowels of their fæcal contents. As to the use of saline cathartics, as recommended by Dr. O'Keeffe and others, we have not had sufficient experience to express an opinion of their value; we have used them in but one instance, and then with decided injury to the patient, producing marked debility whilst the patient was under their influence, without changing the nature of the discharges, only for a short time. Except in cases where there is pain, weight or tension in the region of the liver, with yellowish skin and conjunctiva, we would condemn unreservedly the use of mercury in any of its forms. We have found its use to be only evil, and that continually. The peculiar irritating effect of the mercury on the inflamed bowel increasing with unerring certainty the severity of the symptoms.

Opium.—After the free use of bloodletting, we think opium well calculated to fulfil many important indications in the case, whether it be used in pills or given in injections with cold water or starch. It calms the exquisite sensibility of the bowel, which renders it so susceptible to impressions external or internal. We have seen this susceptibility so great, that a teaspoonful of cold water taken into the stomach would produce an evacuation, with straining, the moment it was swallowed,—the im-

pression having been transmitted through reflex action as quick as electricity on wires. It diminishes this susceptibility to impressions, quiets the peristaltic action of the bowels, and relieves pain. The fulfilment of these indications is much to be desired in the treatment of this disease; for we have no doubt that cases have died from the prostrating effect on the action of the heart and arteries of extreme suffering, before there was any organic lesion sufficient to produce death. We sometimes use, to fulfil these indications, after the free use of the lancet, the following prescription:

Acetat. plumbi,	. . .	4 gr.
Opium,	1 "
Ipecac,	1 "

To be repeated according to the urgency of the case. When the discharges become offensive, and assume such appearances as indicate ulceration, we have found nothing which would reach such cases but nitrate of silver. This I have given in grain doses, every half hour, until the bowels were checked. The same indication that demands the use of this remedy, we think also requires a blister, and in accordance with this view we apply, at this stage of the disease, a large blister over the bowels. With these two remedies we remember to have saved a case, which seemed hopeless. When the inflammation is situated low down, indicated by the urgency of the tenesmus, we have used the nitrate of silver, by injection, in the proportion of two grains to the ounce of water. We would remark, here, that we use poultices to the bowels, made irritating with pepper, or mustard, from the commencement, until we apply the blister. As to the use of stimulants, we deem it unnecessary to say any thing; for we never have seen a case recover from this disease after the extremities became cold.

Diet.—We give our patients nothing to eat at all, so long as we can possibly avoid it, and then resort sparingly to boiled milk, thickened with arrow-root. We unhesitatingly condemn the use of ice. The water used as a drink, we think, should have the chill taken off, to avoid the impression of cold of which we have spoken, and then used in as sparing quantities as the case will allow. The patient, however, may be allowed frequently to wash his mouth with water to relieve dryness.

ARTICLE XXVIII.

Cases of an Epidemic Affection. By LARKIN FLOYD, M. D.,
of Chambers county, Ala.

CASE I. Thursday, April 6th, I was called to see W. A., a little boy aged 9 years, who had for some ten days previous been unwell from a cold and cough. He was attacked on the 4th April, with high fever, headache, occasional vomiting, restlessness, &c., and on the 5th had sore throat and a peculiar distressing pain in the back and extremities, particularly about the joints. I found all the above symptoms continuing, except the vomiting; bowels costive; urine suppressed; tongue coated and edges red; eyes sensitive to light, watery and red; lymphatic glands of the neck swollen and tender; skin hot and dry, with an eruption resembling measles over the entire surface, with itching and burning; thirst; no appetite, &c. He continued in this condition, with exacerbations of fever in the evening, delirium, and the tonsils swelling to danger of suffocation at night, until the morning of the 8th, up to which time I had been unable to get a motion from the bowels, in consequence of obstinate costiveness.

8th. Bowels moved freely this morning, with copious flow of urine, and profuse perspiration soon after. The fever abated, and also, within twelve hours, every symptom except the eruption, and the affection of the throat and neck. The eruption disappeared in a few days, with desquamation of the cuticle, great prostration, &c.

On the 12th, when he was permitted to get out of bed, he could scarcely walk, from the soreness and swelling of the inguinal lymphatic glands, which had been unobserved up to this time, but, no doubt, previously existed. This also subsided in a few days, with slow but perfect convalescence.

CASE II. Miss W., who also had been affected with cold and cough for some time, and who had had a few days some feverish excitement, headache, peculiar aching of extremities, &c. Discovered, April 23d, an eruption of an erysipelatous character, on the face and neck, (at first supposed to have been occasioned by handling rue while wet with dew, and washing

the face and neck soon after,) which soon spread over the body and extremities, with itching and burning; eyes red, sensitive to light and watery; tongue slightly coated; slight soreness of glands, &c. Eruption disappeared about the fifth or sixth day, with some desquamation, prostration, &c.

CASE III. B. S., a young man, previously in good health, except slight headache the evening before—was attacked May 9th, in the morning, with chilly sensations, which continued for about four hours, followed with high fever, excruciating pain and aching of the head, back, and extremities, particularly about the joints—so much so, that he remarked, “if nothing else was the matter, I would be in agony from the pain of my little toes;” skin pungently hot and dry; bowels costive; tongue coated, with edges red; eyes injected, watery, and sensitive to light; lymphatic glands of the neck swollen and tender, &c. These symptoms continued (with some delirium at night) until the evening of the next day, when, from active purgation, followed by a prompt opiate and diaphoretic, the symptoms all abated with profuse perspiration, leaving only extreme prostration and slight soreness of the glands the following morning. Slow but perfect convalescence, with no eruption.

These cases will show the general as well as the diversified character of this disease; and notwithstanding the striking resemblance to *Scarlatina* in some instances, (as case i.,) yet it is, to the close observer, evidently all the same disease. The characteristic feature is not the eruption, but the arthritic or neuralgic and glandular affection; and although these neuralgic and glandular symptoms were overlooked in many instances from the mildness of the disease, yet observation leads me to conclude that, by close examination, they would have been found to exist, to some degree, in every case. Many instances presented not only the pain, but the swelling, tenderness, and stiffness of the joints, with the eruption or without it, as case iii.

Like previous epidemics of *Dengue*, of which I am disposed to regard this as one, it was harmless, except from the suffering, and previous attacks of *scarlatina*, *measles*, or any of the *exanthemas* common in this country, afforded no immunity against

it. It assailed equally the young, the middle aged and the old; but was much milder, however, in the young.

ARTICLE XXIX.

A Case of Idiopathic Buccal Inflammation, attended with profuse salivation. By JAMES W. PITTS, M. D., of Harris county, Ga.

The following case is respectfully submitted, more from the rarity of such cases, than any other peculiarity:

June 1st, 1854. Requested to visit John Hamilton, a Scotchman, aged 54 or 55 years, of scorbutic habit—is consumptive; has been for several years subject to severe paroxysms of asthma. Found him traversing his room in great agony; referred most of his suffering to his teeth and jaws. Face, in the region of the inferior maxilla, swollen; lymphatic ganglions enlarged, hard and painful; deglutition difficult, the effort causing considerable pain—can separate his jaws only to a very limited extent. The mucous membrane of the entire mouth and fauces, as far as could be seen, was red and highly inflamed; surface of cheeks, tongue, soft-palate and gums swollen and very painful; teeth loose; gums separated from the teeth, presenting an ulcerated, flabby and fungous appearance, bleeding freely from the slightest touch—in the course of the disease large portions of the gums sloughed off; salivary glands highly excited, ejecting profusely a dark grumous frothy saliva; breath strongly impregnated with the *peculiar offensive fetor of mercurial salivation*; no metallic taste mentioned; teeth very much decayed.

He was ordered saline aperients daily. To use, freely, warm collutories, such as infusion of slippery elm, simple warm water, a solution of nitras argenti, three or four times per day; in the latter stages of the case, decoction of Seneka snake-root, with sulph. alumina, honey, etc.; Hoffman's anodyne at night, to procure rest. Under this treatment, the case progressed, gradually improving, and terminated in about thirty days.

The flow of saliva and mucus was abundant, and lasted, in all, about twenty days. The quantity ejected was not accu-

rately measured, but would have averaged, for twelve or fifteen days, from two to three pints, or more, per day.

Mr. Hamilton assures me he has never taken any preparation of mercury, within his knowledge—has taken no medicine, whatever, for several weeks, save a dose of castor oil the day prior to my first visit, and some days after his mouth had become sore. Hence I am inclined to consider this a well-marked case of *spontaneous salivation*, originating, perhaps, from the irritation consequent upon the bad or decayed condition of the teeth. The teeth and gums are represented as feeling somewhat loose and sore, at this time, the cavity of the mouth otherwise looks normal.

On the Nature and Treatment of Spermatorrhæa. By JOHN L. MILTON, Esq., M. R. C. S., Eng.

Preliminary remarks: divisions of spermatorrhæa; complications. Treatment—1. Of night discharges, quinine, blisters;—2. Of night and day discharges, opium, nitric acid, cauterization of the urethra.

It has always appeared strange to me that this affection should remain abandoned by the profession to a few solitary specialists, and for the benefit of the vile harpies who prey on this class of victims. Surgery, which has wrested so much from empiricism and ignorance, seems disposed to yield up this, as if it were debateable land, to chance, philosophy, utter neglect, or quackery.

Although of late years several publications have appeared from men of the most unquestionable talent, such as Lallemand, Phillips, Curling, Russell, &c., yet I very much doubt if our knowledge of spermatorrhæa is exactly what it should be, or if the treatment, except as regards the employment of caustic, has advanced materially since the days of Hunter. Thus during three-fourths of a century the shadow has moved but once on the dial.

To the treatment alone, then, this paper refers, a branch of this art almost forsaken, I think, by the general practitioner, and not too well cared for by the pure surgeon. This neglect, and the twofold indisposition of the patient either to trust his ordinary medical attendant with the secret of his disease, or to permit him to exercise that operative interference which the specialists will perhaps insist on; the extent, the manner in which the question has been studiously burked, and

the absence of any *well-known* source to which he can turn for information, have had the natural effect of driving him to those who will make it their business to let him know, that so long as he has money, there is one city of refuge to which he can always fly, and that there *are* men who can treat his complaint with medicine alone, at the moderate rate of "five guineas a bottle."

Yet with strange inconsistency men wonder at and deplore the growth of quackery, though this hydra would soon perish of inanition if deprived of the food supplied by our neglect. Advance in the treatment of disease, aided by the revival of the pillory or stocks for the more audacious of the quacks, would do a good deal to strengthen the arm of medicine.

As I have already stated that the treatment of the disease was to be the chief subject of discussion, I shall delay no further than seems absolutely necessary to explain the plan of the remarks I wish to make. All questions as to the nature and causes of this affection I have left out, as too long for this paper, and I have only laid down divisions of this disease, in order to have something tangible to which the divisions of the treatment could be appended.

Spermatorrhœa admits of a very natural division into—1. Night Discharges; 2. Day and Night Discharges; and 3. Imperfect Secretion of Semen.

1. *Night Discharges*.—These constitute the mildest form of the complaint, and are, as is well known, a common result of seminal plethora; they seldom require much treatment, unless in excess, or when complicated with gleet, stricture, or discharges in the daytime.

2. *Night and Day Discharges*—a more advanced grade, and in their worst form often bordering on the third class. The urethra is then red and highly irritable, and the health severely impaired; but happily for the patient both varieties are for the most part easily curable.

3. *Imperfect Secretion of Semen*—the most severe of all, and necessarily accompanied by temporary impotence. Instead of properly eliminated, healthy, consistent semen, a thin rank fluid, unaccompanied by almost any signs of erection of the penis, is thrown off under the influence of the slightest excitement. Intense irritability of the urethra, and a marked dread of examination, usually complicate this form.

There is a variety of the disease which is generally considered as spermatorrhœa, and with which most surgeons are familiar: I mean the discharge after stool of large quantities of glairy, tenacious fluid, supposed to be the contents of the seminal vesicles. Now, I very much doubt if this be an evacu-

ation of semen: great part of it, I suspect, comes from the prostate; and in my work on Gonorrhœa (p. 101), I adverted to the cure of a case of this kind as being probably an instance of prostatic gleet. Even if it comes from the seminal vesicle, I should scarcely be disposed to admit it to be a discharge of semen, for I have not been able to satisfy myself that these receptacles receive the superabundant secretions of the testicle; but whatever it be, it demands our urgent attention, in order as well to allay the patient's uneasiness about so disagreeable a symptom, as also to leave no chance for the germs of any disease to ripen.

Complications.—It is almost superfluous to say, that all complications require immediate removal. Gonorrhœa and stricture have their appropriate remedies, upon which I shall not touch. It has, however, been asserted that spermatorrhœa may depend upon fissures in the anus, ascarides, &c. To which I reply, that I have strong doubts about the fact; but as these causes would require removing for their own sake, it is obvious that the treatment must be much the same. I must, however, demur to M. Lallemand's plan of excising the prepuce in every case where accumulations of sebaceous matter behind it coincide with spermatorrhœa. Where there is also contraction of the prepuce, so that the glans cannot be uncovered without pain; or where a firm, constricting ring has formed underneath the mucous membrane, I grant that the remedy is circumcision; but where the prepuce passes freely over the glans, plenty of soap and water every morning, and the use of zinc or tannin, in the form of a lotion, will almost always effect a cure.

When circumcision is imperatively called for I have found it best to slit up the skin and mucous membrane to the reflection of the latter, and then to cut away the frænum as far as I could. The constricted part, which is mostly near the edge, is removed in a circle, and the bleeding being stopped, the skin and mucous membrane are brought together by several fine stitches, and the intervening spaces may be covered with collodion. Of the operations I have seen, this leaves the neatest prepuce.

1. *Treatment of Night Discharges.*—Even in cases where it might be supposed, from the healthy frame of the patient, that tonics are not called for, it will often be found that quinine will stop these discharges. Hunter says, "the idea that has been formed of the disease leads to the practice generally recommended, such as giving strengthening medicines of all kinds, but I never saw any good effects from any of them, and I should rather be inclined to take up the soothing plan to pre-

vent all violent actions, and keeping the body open will in some degree moderate the discharge, and may probably effect a cure in the end."—(*On the Venereal*, p. 304.)

Yet there can be little doubt, I think, in the minds of those who have given it a fair trial, that quinine does assist powerfully in controlling spermatorrhœa, especially in those cases where physical weakness is the predominant symptom. I willingly admit that in others its good effects are not so marked; that where the tongue is foul, and there is a good deal of irritability, headache, and dyspepsia, with costiveness, it is more necessary to subdue these symptoms by mild aperients, sedatives, &c., than to give any tonic, however useful in other conditions. M. Lallemand has urged against it, that it produces considerable irritation, but I apprehend this mostly arises either from unsuitable cases being chosen, or from giving too large doses.

When violent and painful erections arise from the irritation occasioned by the presence of, or remaining after, gonorrhœa, the spirit of camphor will generally at once relieve them. A teaspoonful in a little water is the dose. The patient should place all his apparatus in readiness by his bed-side, and as soon as he is awakened by an erection should rise and take a dose. If the erections come on as soon as he lies down, he had better take a dose before going to bed.

Few means of controlling spermatorrhœa could be devised so simple and natural as exercise, especially gymnastics, which the common experience of mankind has extolled from the most distant times. Every abnormal action is marked by the failure of vital power at one or more parts of the frame, and an accumulation of it in the suffering organs. The generative power, animal life, and cerebral development, antagonize each other; and sedulous attention to train the two latter to the highest degree of activity they are capable of, will rarely fail to subdue anything short of excessive action in the generative system, and bring the performance of this valuable function under the mild and healthful sway of reason.

True physiology will always conduct us to the same goal as experience founded on correct observation. Hence every writer who has attentively watched this disease has strenuously insisted on the necessity for gymnastic exercise. But owing to the iniquitously late hours kept up in many London houses, it is impossible to resort to this remedy. It is useless to talk of the advantages of boating, cricketing, &c., to young men pent up in shops and warehouses till ten or eleven o'clock at night. Thus, like the baths, douches, mattresses, &c., which are recommended, they are liable to one grave objection, that of

being inapplicable in perhaps nine cases out of ten, and to make true progress in treatment our main object must be to find out remedies *suitable for every case*.

Accordingly, I have long accustomed myself to rely principally on morning exercise, as the question then becomes one rather of conformity than of ability on the patient's part, and if he be really determined to save himself from the results of his own indiscretion he may do half the surgeon's work if he will rise at five or six o'clock, sponge with cold salt water, use the dumb bells for half an hour, and follow this up with a brisk walk. It will not be long before the eye grows brighter and the skin clearer; before he sleeps sounder and again feels comfort in existence.

Dr. Carpenter recommends his readers as a preventive to try the effects of close mental application. The frantic acts of self-mutilation performed by devotees show that the most absorbing study will not suffice to quench entirely a natural passion. But this is not the only objection to this plan. In the greater number of bad cases, I believe it is useless to inculcate study; the depression and irritation are too great to allow the attempt to succeed, and with all the good will possible, most of these patients cannot make a beginning till their physical condition is somewhat improved. I therefore advise those who have time to spare, to begin study by reading *aloud* for an hour every night, and then to go out as much as they can into society—a plan from which I have seen better results than from attempting to impose on an exhausted brain a task it cannot possibly execute.

But should all this fail to remove the disease—should it persist from habit, as it is called, but which is nothing more than the result of our inability to cope with the diseased action, perhaps no remedy will act more quickly and surely than a blister. Notwithstanding the strong opinion M. Lallemand has pronounced on the subject, I have no hesitation in asserting, after the numerous trials I have given it, that if some proper medium, as blistering tissue, &c., be used, no strangury or “exasperation effrayante” of the spermatorrhœa need ever be feared.

2. *Night and Day Discharges*.—Here we have rather a more serious affair to deal with, though the greater part even of these more severe cases will yield to a persevering use of the remedies already spoken of. Where, however, these are inapplicable, as for instance, in cases complicated with severe indigestion, or a high degree of nervous excitement, with severe pain in the urethra, or excessive sensibility in this canal, or when imperfect secretion of semen has begun to show itself, we must have recourse to further means.

Among these we may safely rank *opium*. Under its use the secretions become thicker, and less pain is occasioned by their being thrown off, as if at one and the same time it blunted the sensibility and checked the secretion of the watery and irritating elements. And besides all this, it is not too much to say, that opium is a tonic both to the exhausted frame and irritated mind. Where there is a frequent desire to pass urine, and in cases marked by excessive watery secretions from the Schneiderian membrane, aggravated by cold easterly winds, opium often effects a most beneficial change.

It may be objected that it tends to produce constipation, destroy the appetite, and favour congestion of the brain; but the two latter seldom if ever result when it is used, as it requires to be, in moderation and at intervals. The constipation also is not an unmixed evil, for in some of these cases there is considerable irritability of the rectum.

In this variety of spermatorrhœa also, few patients are met with who are not benefited at some period of the treatment by quinine. Where the patient is very pale and nervous, and where there is any tendency to spasmodic stricture, the tincture of muriate of iron may be given, and so far as I can judge this, and some of the chalybeate waters, are the only forms in which steel is, if not injurious, at least not useless.

In some cases the patient complains of a foul tongue and thirst, with nausea and lassitude; the urine is turbid, and the stomach disordered; or the stools occasion smarting and heat at the anus. Sometimes he is harassed by a cough, and a good deal of mucus is expectorated. These symptoms indicate a disordered state, which is often instrumental in keeping up the spermatorrhœa, without having been perhaps the primary cause. In such cases I have used the nitrate of potass with success.

After the statements M. Lallemand has made respecting this salt, I could not well pass over his views. He says that nearly all those who took squill, nitrate of potass and digitalis, observed a marked exacerbation of the seminal discharges (*une augmentation notable des pertes séminales*;) and that the nitrate proved injurious in every instance—an opinion founded upon forty cases, he says, some of which were certainly lamentable enough.

But to what was this due? M. Lallemand has left us perfectly in the dark as to the dose, the most important point of all. In one case only can we arrive at any estimate, and here we are briefly informed that an ounce was taken in three days. No one who has seen the irritability of the bladder and kidneys produced by nitrate of potash, or any strong diuretic salt, in

gonorrhœa, will be much surprised to learn that such needless overdosing brought on a "notable augmentation" of the symptoms.

When constipation is much complained of, and the patient has in vain taken large quantities of medicine to overcome it, I would venture to advise the surgeon to desist from any attempts to remove it by drastic purgatives, &c. Not that I at all deny the injurious effects of costiveness, if not on the health, at least on the mind of the patient, whose anxiety is always kept alive so long as this costiveness is followed by a mucous discharge, but that I think the irritation and exhaustion occasioned by repeated purging are even more injurious, and that we may effect the same purpose by less hurtful means.

The remedies I have to suggest may not perhaps meet with the approbation of my readers. I generally trust a good deal to time and improvement of the health, or, when the costiveness is very obstinate, recommend the patient to take a pill of gentian and a small quantity, as the onetwelfth of a grain, of strychnia, with a tumbler of unsweetened gin and hot water at night, and one of cold water in the morning. Even when the constipation has become so extreme that the patient has not had a stool more than once in nine or ten days, a little perseverance in this plan has soon restored the functions of the intestines.

Nitric or nitro-muriatic acid may be given when there is much irritability of the bladder or scalding. If the patient complains of spasmodic pain at the neck of the bladder, and we find the urine loaded with lithates or clouded with mucus, these acids, along with laudanum, may be exhibited in decoction of Pareira Brava or chimaphila. Occasionally he describes an annoying pain at the epididymis, which sometimes shifts to the vicinity of the prostate, or he is tormented by a sensation like that of a worm creeping along the urethra or vas deferens. Sometimes the uneasiness is indefinable, but not the less disagreeable. Strong veratria ointment, or some mild counter-irritant, will generally succeed in subduing these symptoms, which, however, now and then linger on for a long time.

The high reputation which M. Lallemand most deservedly gained by his work on spermatorrhœa, and the writings of Mr. Phillips and Mr. Curling, have attached to the "caustic-holder" an amount of prestige, which however well merited, has, I think, had the effect of retarding improvement in the treatment of this disease by other means. So far from denying that it is both a safe and a valuable remedy, I never hesitate in certain cases to avail myself of it; what I object to is, that so many surgeons look to it as *the remedy*, while, in truth, it is not very

often called for. It has been engraved,* described and commented upon, till an impression has arisen that it is an unfailing but very formidable remedy, whereas it has not only occasionally failed in the hands of Phillips, Curling, Acton, and others, but also in those of its great inventor. "Cauterization," says M. Lallemand, "is most useful in spermatorrhœa from menorrhagia, venereal or non-venereal, and often useful in atony; it is not of much value in cases of irritation, but even here it may aid by modifying the tissues." Mr. Phillips, in the answer he was kind enough to send to some queries I laid before him, says that "it has not only often failed to effect a cure, but even to relieve spermatorrhœa;" and Mr. Curling, in a communication he favoured me with, says, "Cauterization is not an infalible remedy. Some cases are too aggravated or too well established readily to admit of cure by any treatment. Many circumstances tend to counteract the beneficial effects of the caustic, such as want of self-control to check bad habits and the thoughts dwelling on impure subjects, occupations and modes of living detrimental to health, &c." But again he says, "cauterization has rarely failed to give more or less relief."

Of its safety there can be no doubt when it is properly employed. Lallemand used it for twenty years, and even cauterized the lower part of the bladder, without any untoward result; and Mr. Acton, commenting upon this statement, says he can fully bear it out. Mr. Curling says, "in no instance has any harm resulted from the application of the caustic;" and Mr. Phillips, in one of his answers to me, says it has never produced injurious results in his hands, though his experience extends over many hundred cases.

We might suppose that some part of this was owing to the excellent surgery of those who employed it. M. Lallemand does not allow the caustic to remain an instant longer in contact than is absolutely necessary. "I cannot," he says, "protest too strongly against those who give a fixed period (*une durée quelconque*) for the action of the caustic, and measure it off by the watch. *Even to look at the dial takes too long a time.*" And Mr. Curling attributes the absence of severe symptoms in the case where he has used it to his having applied it still more gently. But Mr. Phillips, though he has seen some discomfort caused by it, has rarely heard of any complaint on the patient's part; the pain on passing urine is "very bearable," although he uses the caustic *very freely*. "I have never applied," he says, "too much caustic, but I

* In the engravings I have seen of this instrument, the knob is round like a small pea, while Lallemand says it ought to be oliveshaped (*oliveaire*.)

have more than once failed by using too little." Had any severe symptoms occurred, Mr. Phillips would, we may rest assured, neither have overlooked nor suppressed the mention of them. All that is left us is frankly to admit that in his cases no harm resulted from the application of the caustic. M. Lalleman, however, has seen severe retention of urine, hæmorrhage, intense pains which only yielded after a long time, and it seems that stricture has also followed. I have myself seen cases where intense and long-continued suffering ensued without any amendment in the patient's condition.

Want of success in some cases, the urgent objections raised by some patients to the introduction of instruments, and the decided benefit which has followed from an opposite plan, have induced me to think that it is better, first by every means in our power, to strengthen the frame, and diminish all local and general irritability before resorting to the use of caustic.

A large opium plaster to the loins will generally allay the aching pain so much complained of; I have often added a scruple of camphor to the plaster, without being able to give any good reason for so doing beyond the beneficial effect which resulted from it.

The chief remedy in cases complicated with gleet, severe pain, and purulent discharge from the posterior part of the urethra, and when cauterization has failed, is blistering, which is even more called for than in the other forms of the disease. It very frequently not only relieves the seminal discharges, but it relieves the cause, and I know of no other remedy which does both at the same time.

In every diseased action there appears to be increased vital action at the parts attacked: and as all the functions demand the presence of a certain amount of vital power for their due performance, there is a constant tendency to restore the balance deranged by disease. In chronic disorder the strain on the economy seems too slight to rouse up any violent action in the other parts, and we can only effect a cure by irritants, which carry the vital action so high, that when the rebound takes place it reverts to the normal state; like a bent spring, which, when bent still further, straightens itself by the recoil.

Although with blistering I have sometimes used injections of nitrate of silver to any part of the urethra which seemed diseased, employing only a syringe with a button at either end of the part perforated for the passage of the injections. By this means the urethra is kept sufficiently on the stretch to admit of the injection penetrating into every nook of the diseased part, while the buttons prevent its escape. The injection ought to be allowed to remain in contact till the nitrate is decomposed,

so that the anterior part of the urethra may not be affected by it.

The highly sensitive state of the urethra, which makes these patients shrink instinctively from the approach of an instrument, appears to be caused by, not to be the cause of the spermatorrhœa; and Dr. Tyler Smith has given us a satisfactory reason why the frequent presence of a crude fluid in a canal, which nature only intended to traverse it occasionally and in a consistent state, produces inflammation. Those who upheld an opposite view thought to find a convincing argument in the results which follow cauterization;* but one gentleman who was appealed to proved rather too much, for, finding his patients suffer severely from cauterization, he gave them injections of nitrate of silver to use, which also cured them; and, "a well-known and experienced Scottish surgeon observed that, when cauterization of the urethra failed, he had applied the *cautery* to the external orifice of the urethra *with more decided advantage.*"

I presume the truth is, that the source of suffering is the irritation set up in the testicles, and that any active and wholesome counter-irritant, applied sufficiently near, will allay or even cure it, upon which the redness and tenderness of the urethra will soon subside. However the caustic is often of great service in these cases, for such patients *will* bungle with every remedy put into their hands, as though they derived gratification from thus giving evidence of the miserable state to which they are reduced. With the application of the caustic they have nothing to do; it is sufficiently powerful to keep the fingers quiet for a little time, and in cases complicated with gleet, arising from the "granular urethra," it seems almost indispensable.

Instead of Lallemand's instrument, I very often make use of one I had constructed for the purpose. It consists of a platinum canula and a stilet. The instrument is passed down to the diseased part, and the stilet being withdrawn, a small flexible bougie is introduced, armed in the following way: the tip being scraped so as to make it rough, it is dipped in fused caustic, and then in melted tallow; by this means a thin film of caustic is secured, which acts on every part, without the risk of excessive cauterization at any one point.

In all forms of spermatorrhœa, the food ought to be as plain but as nourishing as it can be procured; no pastry, pickles, or beer ought to be admitted into it, but *plenty of meat* and potatoes, or bread, for dinner, with a little tea or coffee morning and evening; if possible, meat twice a day. The worst cases have always seemed to be more benefited by a full meat diet

* British and Foreign Medical Review, April, 1843.

than by any medicines; and it is not uncommon to find that a patient has grown worse in every symptom in proportion as he has become a more thorough vegetarian. The further south we go, the more do we find a vegetable diet supplanting the animal food of northern nations, and the more prominent a place does spermatorrhœa assume in the catalogue of diseases. Difference of race I shall be told is sufficient to account for this: the Spaniard and the Moor are by nature more ardent than the Esquimaux; the Persian and the Arab than the Livonian. True, but not therefore by nature more prone to spermatorrhœa; it is, that, degenerating by civilization, they fly more readily to that kind of diet and to those habits which produce spermatorrhœa. From what I have been told of those going to hotter climates, and using the diet prevailing there, it is so invariably to aggravate the symptoms, that it seems only reasonable to infer, that men living altogether in an abnormal condition, habit, climate, and diet, will approximate the diseased states of individuals, though possessed of no power to influence the original state of each recurring generation.

But while I strongly urge the use of plenty of meat, I exclude none of the four varieties of nutriment; and I say this advisedly, for I have seen some of the most obstinate cases of spermatorrhœa in ascetic patients, who religiously excluded sometimes all oily, sometimes all sugary matters, and thus appeared to give full swing to the oxalic acid diathesis with which many of them were afflicted.

3. Imperfect secretion, &c.; impotence. Treatment by—1, Sulphite of soda; 2, Diet; 3, Local means. Cases—*a*, of night discharges; *b*, prostatic gleet; *c*, night discharges with prostatic and with recurrent and prostatic gleet, with stricture; *d*, of night and day discharges; *e*, day discharges; *f*, spermatorrhœa and imperfect erection; concluding remarks.

3. *Imperfect secretion, &c.*—Although this state may arise from either of two separate causes,—viz, inherent weakness, or excessive irritation set up in the testes,—yet as both causes are generally in action to such an extent as to render it difficult in many instances to assign to either its true amount of influence and as they converge to a common point—imperfect secretion of semen, and, as a necessary consequence, impotence, I have judged it best to take them both at this stage, which is that most generally presented to our observation.

When imperfect secretion or true spermatorrhœa has merely followed as a result of youthful excess, we may, even when it is accompanied by the most alarming symptoms, as breathlessness, wasting, with loss of strength and spirits, generally promise a cure in every case where neither phthisis nor any pathognomonic signs of organic change in the nervous centres

have set in. This class embraces, I presume, the more serious cases of Mr. Acton. As this gentleman, like M. Lallemand, has not divided his system of treatment, I have sometimes had great difficulty in making out exactly to what branch of disease he refers in speaking of some of his remedies, and he will therefore excuse me if I have misunderstood him.

In the foregoing division I have discussed every remedy which I believe to be called for here, and due perseverance in their use will mostly effect a cure. There are, however, a few points to which I should like to draw attention.

1. The indigestion which accompanies many of these cases is often best relieved by the use of aromatic confection in combination with sulphite of soda and mint-water. Of the way in which it acts I do not profess to offer an explanation; I limit myself expressly to stating the results of my experience.

2. Where practicable, I would advise a gradual transition to the diet on which prizefighters are put when in training. A mild diet has been recommended on good authority, but it soon becomes insupportable; it often causes a most uncomfortable state of distension; and, finally, I have no great faith in its good effects. Whatever plan the surgeon resorts to he will have to persevere with, for many of these patients have an objection ready so soon as anything is proposed.

3. I think it is imperatively necessary to attempt, by every means in our power, as blisters, *occasional* injections, &c., to diminish the sensitiveness of the urethra before resorting to the caustic or even the bougie. We thus not only secure a great number of patients, whom the dread of some operation of this kind drives to the quack, but we materially lessen their sufferings without really losing time.

Spermatorrhœa, as a complication of congenital imperfect erection, is a more rare and more formidable matter. Both, singly, are common enough, but they are not often seen together. In the cases I have met with there was generally extreme derangement of the assimilative and digestive processes; the urine contained oxalates; a faulty state pervaded the organs of the senses, &c. I need scarcely say that it is necessary to draw a wide line of distinction in treatment between *congenital* and *occasional* imperfect erections, both of which may co-exist with an otherwise healthy system.

Sufficient materials do not appear to have been accumulated to found any comprehensive plan of treatment for cases belonging to this subdivision, but, except in rare cases, they do not present any insurmountable difficulties, unless the imperfect erections are congenital, and combined with an otherwise faulty development.

I shall now, in conclusion, offer a few cases to illustrate the most salient points in the treatment I have ventured to bring forward. I have simply used a series of initial letters in compliance with what appeared to be a general wish on the part of the patients.

a. CASE 1. *Night Discharges from Masturbation.*—A——, a good-looking lad, aged seventeen, applied Jan. 20, 1851, with spermatorrhœa, arising from masturbation, which he was continually performing in his sleep. To use an ointment of deuto-iodide of mercury, sufficiently strong to occasion vesication, and have a mild aperient. A few days subsequently tonics were begun with, and he was soon well.

CASE 2.—*Night Discharges from Gonorrhœa.*—Mr. B—— applied, Feb. 12, 1850, with severe seminal emissions arising from gonorrhœa, under which he had been laboring. A surgeon to whom he had previously applied, wished to apply the caustic, to which he objected. He complained of constipation, but otherwise enjoyed good health, and though pale, he was strongly formed. A grain of quinine with ten minims of dilute sulphuric acid, and a drachm of sulphate of magnesia twice a day; a small blister to the perinæum.

14th.—He has not been able to apply the blister. To do so now, and continued the mixture.

March 7th.—Improving. To continue the mixture, and dress the blistered surface with zinc ointment.

April 11th.—He has had no emissions lately. To apply another blister, and continue the mixture. He had no more emissions, as I subsequently learned from him.

b. CASE 3.—*Prostatic Gleet.*—C—— applied March 5, 1850, for the treatment of a discharge of thick mucus, like the unboiled white of an egg, after going to stool. It arose from a gonorrhœa, *he thought*, which had yielded to a tedious treatment extending over twelve months; among other remedies he had used salines and injections. On crossing his legs, pain was felt in the vicinity of the prostate. Copaiba and turpentine were tried in vain; mercury with chalk and rhubarb, were then given, and a blister was applied to the perinæum, which rose freely. The nitric acid and decoction of Pareira Brava were subsequently administered, but as the discharge was not quite gone by the 20th of the ensuing month, he was ordered a second blister, which completely cured him.

c. CASE 4.—*Night Discharges, with Prostatic Gleet.*—Mr. D—— applied, March, 1849, with these affections. He had been addicted to great venereal excesses, and sometime previously, while in a bad state of health, had contracted syphilis, for which he had taken so much mercury that his health had

suffered severely. There was a constant discharge after stool, and sometimes, after passing urine, of tenacious, glairy mucus, and he suffered greatly from night pollutions. In the left groin was a hard mass, apparently swollen glands and cellular tissue. To this a large blister was applied, and for three weeks not a single discharge was noticed; they subsequently reappeared to a slight extent, but were removed in a few weeks by quinine and exercise.

CASE 5.—*Night Discharges, Recurrent Gleet, and Prostatic Gleet.*—M. E.—applied to me, July 18, 1853, with the following symptoms: He suffered from periodical attacks of great excitement, indigestion, and constipation; a free purulent discharge from the urethra and glans then set in, followed by several emissions, after which all the worst symptoms subsided; occasionally a mass of mucus was thrown out after going to stool. He had been addicted to masturbation, and had then caught a gonorrhœa, which made him worse. Having relieved the indigestion and costiveness, and got him into habits of morning exercise, I injected the urethra with the perforated syringe, and then applied the nitrate of silver with my own instrument; still the urethral gleet continued, and he had occasionally an evacuation of mucus after a stool. A blister was therefore applied to the penis, and in this case, also, there was not a single discharge for three weeks after; quinine was used and a cure speedily followed.

CASE 6.—*Night Discharges and Stricture.*—F—, aged twenty-two, applied Aug. 15, 1853, with seminal emissions which occurred every night, and had now lasted, he said, seven years. He looked pale and shattered, and had been recently under the care of a surgeon, who had used the bougie, and materially relieved him. A slight stricture was now detected, which the bougie soon removed. Salines, containing nitrate of potass. were given, and these, with quinine and mustard poultices to the perinæum, effected a comparative cure to his previous state.

d. CASE 7.—*Night and Day Discharges, with accumulation of Sebaceous Matter.*—G—, a stout, healthy young man, applied, June 18, 1853, with seminal emissions, occurring two or three times a day, exclusive of those at night; they appeared to have resulted from gonorrhœa and a very unhealthy employment; never guilty of masturbation. Ordered, quinine twice a day; exercise and cold sponging.

25th.—He is much better; there is some sebaceous matter about the neck of the glans. To wash this well with soap and water, and afterwards apply a zinc lotion; the mixture to be continued.

30th.—He is just well, and has only had three seminal emissions the last week. He has removed all the sebaceous matter, and the prepuce is seen to be very red inside. To continue. As complete a cure ensued as ever does in these cases, a seminal emission at night occurring from time to time.

CASE 8.—*Night and Day Discharges.*—H——, a pale, delicate young man, applied, June 25, 1853, with gleet and seminal emissions, occasionally in the day, but mostly at night. He complained of great weakness, pain in the back, and cough. An opium plaster to the loins, quinine twice a day, meat diet, and volatile liniment to rub on the chest; morning exercise. During the latter part of July he had a few days' sea-bathing, which did him a great deal of good; the opium plaster relieved the pain in the back, and was accordingly repeated as often as it fell off. By the 12th of September he was so far improved that he had no seminal discharges for three weeks; but the gleet grew so much worse, that I was obliged to order him injections. Having left off his medicines, he had a slight relapse, but, on resuming them, was rapidly cured of all but an occasional discharge at night.

e. CASE 9.—*Day Discharges.*—Mr. J—— applied, November, 1852. He had two to six times a day faint erections, and immediately after a thin discharge. The urethra was red, and there was a strong smell from the glans. He was pale, nervous, and so weak that he thought he could not live, and he was tormented by a constant cough, with indigestion and costiveness. Salines, containing a little syrup of red poppies, and five grains of nitrate of potass, three times a day; mustard poultices to the perinæum; veratria ointment to the testicles. Soon after quinine was commenced. He gradually recovered, and at the end of ten weeks was so far advanced towards a cure that he gave himself no further trouble about the matter.

f. CASE 10.—*Spermatorrhœa and Congenital Imperfect Erections.*—Mr. J—— applied, Aug. 12, 1852. Erections never had taken place, and there was a constant discharge from the urethra, which was in an inflamed state, of rank, thin fluid. He was, and always had been very weak. Cauterization had been tried, and failed. He was the type of this class of patients. Every secretion and every sense was at fault, as if the whole constitution suffered from the struggle to establish the defective virile power. Blisters, quinine, and nitric acid &c., were all tried in succession, with little improvement in either the spermatorrhœa or the erections.

Lastly, I would only urge the patient to banish from his mind the idea that a perfect absence of seminal emissions at night is compatible with health and continence. Those who tell him

so deceive him, or are deceived ; and I cannot conclude better than by quoting a part of Mr. Curling's letter. "I assume," he says, "the cure of spermatorrhœa to mean, not the arrest altogether of involuntary emissions, but the prevention of their frequency to such a degree as to weaken the powers and impair the health.—[*London Lancet*.

On the Treatment of Cancer by Congelation. By JAMES ARNOTT, M. D.

Since the publication of a paper in *The Lancet* four years ago, on the application of intense cold in cancer, I have had considerable further experience in the use of this remedy, and an opportunity of fully confirming the opinion of its utility therein expressed. The treatment of cancer has engaged much of the attention of other inquirers during this period, who probably expected some greater practical benefit from the discoveries which the microscope had led to, than an assistance merely to diagnosis ; but, with the exception of congelation, no advance has been made in this respect. Our knowledge, indeed, of the treatment of cancer, may, in a certain sense, be said to have increased, independently of this exception, not, however, by advancing, but by wise retrogression ; the addition to it has only been the detection of error. We have had further evidence that the confidence which some practitioners had in certain curative measures was misplaced. As respects the curability of cancer by excision, Mr. Paget says, after a close investigation of the records of upwards of 300 hospital cases, "that though he will not call such a thing impossible, yet it is so highly improbable, that a hope of its occurring in any single case cannot be reasonably entertained," (*Surgical Pathology*," vol. ii., p. 351) ; and with respect to the question of the utility of the same measure as a palliative and means of prolonging life, he states, in a communication to *The Lancet* the year before, that the result of his statistical inquiries is, that persons operated upon for scirrhus cancer of the breast die "thirteen months sooner of this disease than persons not operated upon." It must not be forgot that in this calculation the cases are omitted of all who die from the immediate effects of the operation, which is more dangerous than had been supposed, the mortality amounting to ten per cent. If chloroform has diminished the suffering, it has not diminished the danger, from the operation, several cases (the last occurring about a month ago, at Sheffield) having proved fatal from its use. The other remedy—the application of caustic—in which some con-

fidence has also been placed, especially in malignant affections of the womb, is commented upon by Dr. Robert Lee, in his recently published account of one hundred cases of cancerous disease of the uterus treated in the ordinary manner. He concludes his analysis of these cases by the observation "that the fatal progress of the disease was never arrested by cauterizing the morbid structures through the speculum, nor by any other means of treatment."

The use of cold in cancer is by no means a new proceeding; no practice is of older date, or has been in more general use. All that I have done is to exhibit the remedy in a greater dose than it had previously been exhibited. Having ascertained the important facts that the circulation in a morbid part may be temporarily suspended by intense cold, without, in the slightest degree, endangering the vitality of the part, and that such a suspension, and other concomitant effects of this degree of cold, are highly curative in inflammatory and neuralgic affections, I merely applied it in cancer to arrest the inflammation accompanying the disease, on which the rapidity of its progress, and many of its most distressing consequences, depend, and at the same time to assuage the pain by its permanently benumbing or narcotic property. I at first expected only to find a substitute for the very inefficient and otherwise objectionable remedies of inflammation and pain in common use in cancer; and had congelation only fulfilled these indications, it would have been very valuable; but experience has shown that it has still more powerful effects in this disease, although, from the unknown nature of cancer, it is as difficult to account for these as it is to explain how the exhibition of bark or quinine cures an ague. Prof. Bennett, of Edinburgh, expresses (in his able work on Cancer, the opinion, that "were it possible to bring down the temperament of an entire cancerous growth below the vegetating point, we must inevitably kill it;" and it is not improbable that to such destruction of the vitality of the cancer-cells—to the killing of these parasitic animalcules—the curative influence of congelation may be chiefly due. But however satisfactory it might be to ascertain the mode of operation of the remedy—whether it acts in this manner, or by some unknown change produced in the functions of the vessels or nerves of the part, in addition to its obvious power of suppressing inflammation and assuaging pain—the chief point is to know whether it has great control over cancer, and this can be ascertained only by experience.

In further evidence of its possession of such power, I adduce the two following cases. I have selected them, not because they afford illustrations of the most beneficial application of

intense cold, (for the publication of extraordinary results is, from exciting incredulity, apt to be as pernicious to the reputation of a novel remedy as the publication of failures,) but to show what may be always expected from congelation in advanced stages of unequivocal cancer, and after the trial of all other measures, when the remedy is had recourse to before the disease is so very far advanced, and the strength and spirits of the patient so far reduced, as to render her hopeless and indifferent about any further effort. These two cases illustrate the power which congelation possesses of arresting the progress of the disease, when it does not at once cure it, and of immediately terminating whatever suffering the patient may have before endured from it. In earlier stages the nature of the disease is not so certain, and therefore its removal in these stages by intense cold may not be admitted to be the removal of malignant disease. I could adduce many instances of this description from my own practice and that of others, particularly where the disease attacks the uterus, but shall, for the reasons assigned, prefer the cases of arrest, which have the additional advantage of being recorded in great part by other hands—one by the husband of the patient, the other by the patient herself. The first of these patients had been attended for some time by Dr. Forbes, of Inverness; the second by a practitioner at Tunbridge Wells.

I saw the first patient during a visit which I made to the north of Scotland in the Spring of 1852. I learned from her that there had been a hard and painful swelling in her breast for upwards of two years; that lotions, ointments, and other remedies had been tried for its removal in vain; and that since she had refused to have the breast amputated, about nine months previously, she had consulted no medical man on the subject, and had only used the mildest applications.

The patient was about fifty years of age. Her general health was not good, but much of the derangement of the stomach and other organs was attributed to the increasing and intense anxiety she laboured under on account of the affection of her breast. On examining this, I found a hard tumour of considerable size, or what appeared to be two contiguous tumours; the nipple was considerably retracted, and there was a slight morbid exudation from it; the pain was of a plunging character, and of such frequent recurrence as much to disturb her night's rest. The disease was evidently gradually progressing.

I applied a mixture of ice and salt for about five minutes on two occasions, with only about a week's interval between them, as I was anxious, before leaving Inverness, to make a

second application in the presence of her husband, who was to continue the remedy, and to whom accordingly I gave the necessary instructions respecting it.

The results of his administration of the remedy were communicated to me from time to time, and the following are extracts from his letters:—

“May 25th, 1852.—In writing to you I feel intense pleasure in having to communicate that Mrs. M—— has been regularly and progressively improving since you saw her. We have got the caddis, goldbeaters’ skin, oil skin, &c., and the gutta percha frames for the net and bladder have been nicely formed. In fact we have got every thing you suggested, so that our apparatus and accessories are complete. We get the ice now daily, if necessary, and the applications have had the most desirable effect. * * * There is no internal pain whatever; the tumours are at least decreased *two-thirds*, and she sleeps well and comfortably at night. Everything is very encouraging, and as you could wish.”

“May 31, 1852.—I am truly happy to say that Mrs. M——’s breast exhibits a daily improvement, and there is consequently the greatest encouragement for perseverance in the same course. The *severe* application of the ice and salt has not been tried since you left, but the other (the milder) has been several times, and always with the best results. We shall try the severe application in a day or two however.”

“June 14, 1852.—A *severe* application of the ice and salt was made on Wednesday, and although kept on for four minutes, and until the colour of the skin became entirely changed, it produced no blistering. The bladder with iced water was kept on for half an hour afterwards, and there has been great ease since from occasional applications in that way. The tumours are perceptibly decreasing.”

It is necessary, in explanation of this question, to state that the bladder with iced water, applied after the congelation, was employed to prevent the smarting that would otherwise occur from the too speedy return of the natural temperature of the part. This would otherwise be sometimes severe; at other times, the patient scarcely complains of it, and dispenses with the application of the bladder. The description of the effects of the frigorifice on the appearance of the skin would show that the materials had not been properly prepared or mixed, as when they are so, the skin is generally *immediately* blanched by them.

“July 14, 1852.—The tumour continues very evidently, though slowly, to lessen in size and hardness. The general health I consider to be in a better condition than when you saw Mrs. M——. The ice and salt has been *strongly* applied four times since you left Inverness.”

“27th.—I now write, owing to our being disappointed of ice as

calculated on when I last wrote. Mr. —, of the —, who always supplied us, has sustained a severe loss by the man who had the charge of the ice-house leaving the door open for three days, so that the whole stock was dissolved, and there is not a bit to be got in the north."

After mentioning some details respecting the difficulty of procuring ice, (which might have been artificially made by a chemist at small expense,) he continues—

"I am glad to say, that the long interval has not been so prejudicial to the breast as I dreaded."

As matters appeared to my correspondent to go on in a satisfactory state, I did not hear from him until after a lapse of nearly a year.

"June 16, 1853.—The ice and salt had not been applied since I last wrote to you. There has, however, been no relapsing. The nipple has sunk or receded considerably since you saw it, but the tumour has almost disappeared—that is, there is very little hardness or tenderness remaining. There is, however, a hollow or kind of indentation across the breast, near the nipple, but not the slightest indication of a tendency to suppuration. There is, also, a frequent feeling of shooting or twinging pains."

In reply to this letter, I expressed regret that so long an interval had been allowed to elapse without using congelation, as there appeared reason to fear that a remnant of the disease was still present; and, in the next communication from the husband of my patient, (the last which I have received,) dated Nov. 15th, he mentions that the ice and salt had again been once applied. The only interesting circumstances noticed in this letter, respecting the condition of the breast, are, that "there is no hardness or tumour;" although there was occasional annoyance from the sticking of the lint to the skin in consequence of the "exudation of a gummy substance close round, but, so far as I can see, not out of the nipple."—*Ib.*

(To be continued.)

On Headache and its Varieties. By PATRICK J. MURPHY, M.D.

Unfortunately a great difficulty of diagnosis exists in our profession when co-existing symptoms arise from different diseases. The anæmic headache may exist for years, and then have the neuralgic superadded, but this is not of so much practical importance, as the remedies for the one form do not make the other worse; on the other hand a delicate female, long suffering from anæmia and its headache, is often attacked with fever, and the anæmic is thus replaced by the congestive.

headache. If stimulants be now given, serious mischief may be the consequence, while, on the contrary, a practitioner who sees her for the first time may deplete too largely and produce a tedious convalescence. These mistakes can occur only on the invasion of the fever, for in a few days, the thirst, heat of skin, and loaded tongue, point out clearly what is to be contended with. Cupping or leeching will relieve the head for a few hours, but if the fever be ataxic a degree of prostration may be induced from which the patient can never be roused. I have never seen the anæmic and rheumatic headache combined; the combination is rare, but there is no reason why such may not occur.

Treatment.—As debility not only attends, but is often the sole cause of this form of headache, the treatment must, of course be directed in accordance with this view. The diet is most important, and the proper kind at once suggests itself; it should be nutritious, and as the muscular coats of the stomach and intestinal tube have lost their tone, or, more correctly speaking, have their contractile power weakened, common sense points that it should be easy of digestion. Animal food is indispensable; it may be taken twice a day. Mutton is to be preferred. Beef, unless stewed, lies heavy on the stomach of weak people. The lean of roast pork may be permitted; it is a variety, and digestible. The flesh of young animals is neither as nourishing nor digestible as those of mature age. Wild-fowl, hare, or rabbit, seldom disagree. Roast meat contains more nutritious matter than boiled, but either may be taken according to the fancy of the patient. The richest soups and strongest jellies are in every way inferior to the meat from which they are produced; even in a healthy stomach they cause flatulence and distention, and, *a fortiori*, the weak stomach cannot escape. The more solid-fish, such as sole, turbot, &c., may be permitted. Stewed eels are wholesome and agreeable. Oysters fresh, uncooked, and cut into three or four portions, never disagree. Vegetables, unless potatoes, should be cautiously used. Bread should be stale, nothing is more indigestible than fresh bread or buttered toast. An excellent evening meal can be made with tea and rusks. Of fruits, strawberries, raspberries, goosberries, pears, peaches, and plums are agreeable and aperient; uncooked apples usually disagree. Nuts, almonds, and raisins frequently give rise to painful feelings in the stomach. There is a craving for stimulants, which ought to be indulged in moderation. Ale or porter may be allowed at dinner and supper; perhaps porter is preferable, as it usually contains a chalybeate. Bitter ale is useless. A glass of wine between breakfast and luncheon, with a biscuit, is always

found grateful and invigorating. To alcoholic drinks the objections are self-evident, especially when young females are the patients. Very delicate females are much benefited by breakfasting in bed. The meals should be light, and repeated whenever the faintness or sinking of the stomach is approaching. Many cases, however, will occur, more particularly in young men, where no directions for diet will be needed, almost all kinds of food being digestible.

All causes of exhaustion should be guarded against. There is nothing more injurious to a flaccid heart than smoking, many cases being tracable to this cause alone.

The medicine on which the greatest reliance may be placed is iron. Fortunately, this remedy can be exhibited in various forms and combinations. The formulas in the *Pharmacopœa* are as numerous as those of mercury. Griffith's mixture is an elegant mode of prescribing iron, but as the myrrh is unpalatable and useless, it may be omitted; or a form for which we are indebted to Mr. Donovan may be more advantageously substituted; it is as follows: pure sulphate of iron, one drachm; magnesia, ten grains; purified sugar, one ounce; rose or cinnamon water, eight ounces; mix. This is a scientific prescription; and if the iron be free from red oxide, the green colour is preserved for eight or ten days. The magnesia neutralizes the sulphuric acid, and converts the sulphate into a protoxide. The sugar prevents decomposition, and it may be flavoured with mint or peppermint water. In hospital practice it would be found most economical, and treacle might be used instead of sugar. In the hysterical female, infusion of valerian adds to its value; and if there be great sense of exhaustion, ammonia in combination is most beneficial. Persons will take pills who object to fluid medicines. The compound iron pill might be improved by using treacle and potash, which keep the pill soft; and by omitting the myrrh, which only adds to the size. If the cause of the debility be from leucorrhœa, or hæmorrhage, the tincture of sesquichloride of iron in doses of fifteen drops, three times a day, will be the most certain form to employ at first. Young unmarried females, from about their twenty-second year, are very subject to a chronic gastritis, or rather irritable stomach; for these the best preparation is the carbonate of iron, with sugar, of the *Edinburgh Pharmacopœia*. If the appetite is bad, sulphate of quinine may be combined with iron. The occasional constipation, which is caused by the loss of tone, the sulphate of zinc, with small doses of sulphate of strychnia, relieved. In severe chlorosis, the crystallized citric acid aids the iron; and in scrofula, iodide of potash may be joined with the iron mixture. If

there be a periodical neuralgia, the most effective form is the precipitate of carbonate of iron. In a severe case of chorea and anæmic headache, Fowler's solution of arsenic was combined with Donovan's mixture, and in fourteen days both diseases were relieved permanently. When there is a tendency to œdema, and there is any objection to the tartrate of iron and potash, a chalybeate in another form may be prescribed, and supertartrate of potash taken as common drink. The bowels should be kept gently open by an electuary of senna or the compound rhubarb pill. Friction over the cutaneous surface is very useful; in cold weather, the hands and feet ought to be well rubbed two or three times a day, to guard against the existence of chilblains, to which there is a great tendency in these constitutions. In a case of polypus growing from the fundus uteri, attended with profuse discharges and anasarca of the lower extremities, chalybeates kept the symptoms in check, and relieved the severe headache, until the protrusion of the tumour permitted the application of a ligature. Minute directions for the treatment, however, are not necessary, for the form of headache being ascertained, the proper remedies are obvious.

CONGESTIVE HEADACHE.—There are two forms of congestive headache (independent of phrenitis)—the passive and the active. The passive congestive headache is what is commonly termed cephalalgia. Its causes are various, numerous, and dissimilar. The importance of understanding fully its pathology will be acknowledged when we recollect that it is very common, very alarming; that the pain originates from distension of the intra-cranial sinuses and veins; that it is symptomatic both of adynamic fevers and of those purely inflammatory, therefore requiring opposite treatment; and that it may end in what some call phrenitis, one of the rarest of the phlegmati. How often, in adynamic fevers, which are always ushered in with passive congestive headache, has reaction been checked, and a fatal termination been the consequence, from the loss of even a few ounces of blood, injudiciously prescribed to relieve a symptom erroneously supposed to be a precursor of effusion.

Cause.—The immediate cause of the headache is distension of the intra-cranial veins, the blood having receded from the surface in consequence of a chill or rigor. Hence it is one of the earliest symptoms in all adynamic and most of the inflammatory fevers, in the exanthemata, and also in the cold stage of ague. It is the headache of those exposed to severe cold; and this exposure, when prolonged, induces that tendency to sleep (coma) so fatal if not resisted. When cold bathing is injudiciously prescribed, especially to weak and delicate sub-

jects, or to anæmic females, this form of painful headache is the consequence, commencing sometimes even before they leave the water. The passive congestive headache is also the headache induced by the depressing passions, by mephitic vapours, by the inhalation of carbonic acid gas in crowded rooms, by intense mental occupation, or by tight stocks. The headache complained of in diseases of the heart or lungs, when the circulation is much impeded, is attributable also to congestion. The weak and delicate, being least able to resist the effects of cold, are therefore more obnoxious to congestive headache, and hence the anæmic is often replaced by the congestive. Phrenitis may of course be preceded by congestion, but it is a phlegmasia very rarely encountered, unless from injury or disease of the cranial bones. This assertion may be considered rash; but during a long practice, and sufficiently extensive to hazard a medical opinion, I think time will confirm its truth. Concussion of the brain is a temporary passive congestive headache.

Diagnosis.—The headache is sometimes a solitary affection, or rather other symptoms are disregarded. A tensive pain, as if the cranium were too small for its contents, is felt, but not referrible to any defined part of the head; the pain is constant, increases in the recumbent position, and hinders sleep; is exasperated by exercise, mental occupation, and, *if reaction has set in*, by stimulants. The headache may continue a week or two without any other well-marked symptom. If the headache be the result of a blow or exposure to cold, and it be not relieved by reaction in two or three days, the pulse becomes slow, the heart labours, the surface is chilly, the countenance pale, the appetite fails, the gait is unsteady, and there is a confusion of ideas. These symptoms, when combined, are seldom of long duration; and if the congestion be not relieved by epistaxis or medical treatment, it will end either in coma or reaction when the phenomena change. Coma need not be described. In reaction nausea or vomiting are primary symptoms, the pain of the head becomes more severe, the face flushes, the eyes are suffused, the pulse quickens, the skin becomes warm, the tongue white, the desire for food is lost and replaced by thirst. Fever is now present, what Cullen termed synocha, and the treatment cannot be misunderstood. Concussion of the brain, when followed by reaction, admirably illustrates the above history.

When this form of headache is the prelude to fevers of the adynamic type, and before reaction commences, most of the following symptoms co-exist, all also denoting a retrocession of the blood from the surface to the deep-seated veins;—a chil-

ly surface; lumbago, from congestion of the deep-seated spinal veins; nausea, from cephalic congestion; præcordial oppression, from distension of the right side of the heart, and, as a consequence, a slow, labouring pulse. In the exanthemata, either from the intensity of the poison, or from a peculiar constitutional debility, their invasion is occasionally attended with delirium and that of small-pox, frequently with convulsions. Similar symptoms are said to be occasionally witnessed in rubeola, but in scarlatina the poison is sometimes so powerful and depressing that within twenty-four or thirty-six hours from the seizure, death is the result, reaction being overpowered. In such diseases, and especially in typhus gravior, our principal aim should be to hurry on reaction, for if we succeed early, the danger is much diminished. In adynamic fevers, the failure of reaction is more to be dreaded, and its failure is more dangerous than in those of the inflammatory type. Hydrencephalus of the non-tubercular form has its history and treatment, as a passive congestive headache, where perfect reaction fails. It is this form of hydrencephalus which is occasionally cured, and no doubt the cures would be more frequent were the diagnosis more exact; but it is sometimes mistaken for infantile remittent fever until the overloaded veins and sinuses relieve themselves of the watery parts of the blood by effusion into the ventricles, and lessen the chances of relief. It would be a worthy task to write a short treatise on the curable and non-curable form of hydrencephalus.

The *treatment* must depend on the cause. The length of time the headache has existed must also guide us in selecting remedies. If it follow cold bathing, or exposure to cold otherwise, and if not more than twenty-four hours in duration, the production of reaction as speedily as possible is the undeniable plan. For this purpose the sufferer should go to bed in a warm chamber, and be well covered with bed-clothes, a large glassful of mulled wine or hot spiced ale may then be taken, and, if necessary, repeated, a few hours elapsing. If the headache persist, and the skin be cold, an emetic of fifteen or twenty grains of ipecacuanha should not be neglected, for the act of vomiting forces the blood to the surface, and experience has taught us that the headaches of the primary stage of fevers, or of the cold fit of ague, are frequently removed by spontaneous vomiting, forcing the blood to the skin, and inducing diaphoresis. Should perspiration be still delayed, diaphoretics composed of acetate liquor of ammonia and spirit of nitric ether should be freely exhibited, together with white wine whey, until they act freely, which usually terminates the pain of the head and the danger of synocha. If, however, reaction be delayed

for several days, we have to apprehend one of two effects—coma, or fever. The former is by far the more dangerous. Although in diseases of the head there is a prejudice against hot baths, yet they may be prescribed in these cases with confidence; but if objected to, the hot air-bath may be substituted. In addition, a blister to the nape of the neck, and sinapisms to the calves of the legs. Leeches to the temples, and the scarificator to the nape of the neck, is in these cases oftentimes ordered without due discrimination. If the skin be warm, they may relieve; but where the skin is coldish and the pulse weak, to say the least, they are uncertain; but as nature sometimes relieves these headaches by epistaxis, she may be imitated safely by applying two or more leeches to the septum narium, about half an inch above the nares, with the aid of a curved leech-glass; the application is easy. As the bleeding which follows is sometimes very profuse, especially in children, a second leech need not be applied until the bleeding from the first has ceased. This method has many advantages; it is the most cleanly and the least troublesome, as, to encourage the bleeding, it is sufficient to hold the head over a bowl of hot water; it leaves no marks, a matter of some consequence when young females in the higher classes of life are the patients; it relieves the head at the least expense to the sanguiferous system, for there is very little communication—although opinion is otherwise—between the vessels of the scalp and those of the brain; while the mucous surface of the nose has a direct communication with the longitudinal sinus. The transition to reaction sometimes takes place without relief, and is so gradual that it is difficult to decide on the exact moment for depletion; but if the surface is warm and the face flushes, the difficulty ceases. The headache continuing after reaction is fully established constitutes fever. We now know what to do. Twelve or fourteen ounces of blood should be taken from the arm in the upright posture, saline purgatives prescribed, low diet and mental quietude rigidly enforced. If the headache be not relieved, small nauseating doses of tartar emetic are very valuable, and we are not justified in withholding mercury, and it ought to be given until there is tenderness of the gums. This is one of the fevers (synocha) which so many physicians have remarked yield on the appearance of salivation. The application of cold lotions to the head are useless, perhaps injurious, in simple congestive headache, before reaction, for the effect must be to repel the blood from the external vessels. This form of headache rarely continues a month without producing mischief. If the headache be the consequence of a blow or fall, it must be treated actively as soon as the depressing effect of concussion

ceases; if nausea or vomiting succeeds, and the skin be hot, we may be certain that inflammation of the cranial contents is in progress.

The exanthemata and adynamic fevers commence with this form of headache, and for several days it alone is complained of. The hurried, slovenly practitioner overlooks the cause, and irreparable injury may be done by the loss of even a few ounces of blood; venesection to any extent is almost fatal, and even local bleeding jeopardizes the recovery of the patient; for, to the congestion we have added a poison depressing the heart's action, and still further impeding reaction, which the additional cause of loss of blood renders almost impossible. How many cases of typhus gravior have I seen terminate unfavorably, solely, I may venture to say, from the application of ten or twelve leeches to the temples, to relieve the intense headache of the very early stage. The proper remedy at this period is the exhibition of an emetic of ipecacuanha, to which may be added eight or ten grains of sesquicarbonate of ammonia. The treatment of these diseases does not enter into my remarks on headache. Their invasion is sometimes so violent that convulsions attend, but convulsions do not foretell so dangerous a form of exanthemata as when we find a child after a few hours' illness become insensible, speechless, with a very weak pulse, and a cold surface. These symptoms are more common from the poison of scarlatina than from any other; all those so affected have died within thirty-six hours of the attack, no matter what remedies were employed, except one treated by galvanism. The symptoms were very properly regarded as congestion in the most intense form without the power of reaction. The electro-galvanic battery was employed exactly as it is for the congestion of those poisoned by opium; a flexible tube was afterwards passed into the stomach, and port wine and ether introduced, and also friction to the surface, with hot, dry, flannel cloths. In alluding to the treatment for the coma which follows exposure to cold, the necessity of employing this powerful remedy was omitted. There is also another remedy for the simple congestive headache, which should not be despised, although it is constantly employed by empirics; it is popularly termed "traction," or dry cupping. Those who have never seen it employed cannot imagine what a powerful effect it must have when used in the following manner. The back of the neck, between the shoulders, and, if deemed necessary, even down to the loins, is smeared with spermacetti ointment; the exhausted glass, is then fixed; it moves with the greatest facility over the anointed surface, acting powerfully on the cutaneous bloodvessels, leaving every portion of the skin

over which it has travelled of a vivid redness. Dr. Graves speaks highly of it in his last published work, as applicable to the hysterical (congestive?) headaches of females.

The only difficulty in treating this form of headache is when it has existed for several weeks without the attending fever; for when once fever appears it ceases to be recognised as a mere variety of headache.—[*Ib.*

Observations on Exhaustion from the Effects of Heat. (Coup de Soleil.) By H. S. SWIFT, M. D., Resident Physician of the New-York Hospital.

Owing to the oppressive and long-continued hot weather of the past summer, an unusually large number of cases were admitted to the New-York Hospital of what is called *coup de soleil*, or, as now regarded by the profession, extreme prostration produced by exposure to excessive heats, combined, perhaps, with the effect of receiving large draughts of cold water into the system, when overheated.

So prevalent, indeed, was this disease, that at one time it was regarded almost as an epidemic, not only in this, but in neighboring cities. Several cases occurred in the country, where, heretofore, it has seldom appeared. It will be recollected that a large per cent. of the cases were fatal. The report of the City Inspector of this city alone shows 260 deaths from *coup de soleil*, without including many cases designated as "congestion of the brain" and the "effects of cold water."

It is now only five or six years since the nature of this disease was pointed out, and yet the profession, generally, have but vague and indefinite ideas respecting it, and it is a matter of surprise that medical literature is so deficient on this subject. A few short monographs, and a few reported cures, are all that can be found in regard to it. Cases are not so infrequent, nor is this affection so devoid of interest, as this silence would seem to indicate.

I have no new theories to propose, or any new light to throw upon the pathology or the treatment of this disease; the object of this paper is simply to call the attention of the profession to this subject, more especially as the season is now approaching in which we may reasonably expect a return of this "calamity."

The term *coup de soleil*, as applied to this disease, is a misnomer. It is a popular rather than a professional appellation. All our authors agree that "cerebral apoplexy" is occasionally produced by exposure to the direct rays of the sun. This I regard as true *coup de soleil*. The subject now under consideration is an entirely distinct affection. It is now almost

universally admitted to be mere nervous exhaustion produced by protracted and violent exercise in an over-heated atmosphere.

Of the large number of cases observed by me, none were strictly apoplectic, and no lesions were noticed in those which proved fatal, sufficient to account for death. Those two opposite conditions—the “cerebral congestion” and “nervous debility”—require opposite modes of treatment, and should be carefully distinguished from each other.

The subjects of this affection are usually laborers who have been exposed several hours during the day to the direct rays of the sun, the thermometer being over 90°. A great majority of the following cases were foreigners, many of whom had but recently arrived in this country, and who, after the deprivations of a long passage, were ill-adapted to endure great fatigue in so high an elevation of temperature.

The same condition may result after exposure to artificial as well as solar heat. Eleven patients were attacked one morning in the laundry of one of our principal hotels; several were brought to us from a sugar refinery, where, after working several hours in a close and over heated apartment, they fell down suddenly in a state of insensibility; and we had an opportunity of comparing their symptoms and lesions with those who became exhausted after laboring in the sun, but were unable to satisfy ourselves of any distinction.

Whatever tends to enfeeble the vital powers must be regarded as the predisposing cause. This may result from muscular debility or preëxisting disease. Heat acts as the exciting cause. One patient had suffered for several weeks from an obstinate diarrhœa. He had eaten nothing on the morning of the attack, and, after imprudently walking only a short distance in the sun, fell down insensible. Another patient was suffering at the time of the attack, as we afterwards learned, from the usual *malaise* of fever, and after convalescing from this disease, passed through the ordinary attack of petechial typhus. Still another was in a cachectic condition from the influence of malaria. He was also picked up in the street, and brought to the hospital in an insensible condition. These cases were not included in our Report, though they were evidently suffering from this disease at the time of their admission to the hospital.

An attempt has been made to distinguish those cases which are the result of exhaustion merely, and those who have been suddenly seized after drinking large draughts of cold water when over-heated either from exposure to the sun or by violent exercise. If such a distinction exists, by far the greater number of cases which fell under my observation would be

included in the latter class, though only in a single instance were we able to trace any *immediate* connection. A seaman had been employed, during the day, in the rigging of a vessel, exposed to the direct rays of the sun. At 3 P. M., he complained of a severe pain in the head and a "sense of sinking within him." After drinking very freely from a bucket of hydrant-water, he plunged his head into it, and immediately fell down insensible. Most of the patients had been drinking water freely during the day,—some moderately,—while others had scrupulously avoided it. But a large majority of them were attacked immediately after dinner, when probably large draughts of water were employed.

For this reason I am inclined to believe that the effect of the cold water in these cases is merely to hasten the development of the disease, and that a majority of the cases reported as deaths from "drinking cold water," are really occasioned by "solar exhaustion." Nearly all the patients were exhausted by severe labor, and at their dinner they were in just the condition to suffer from the shock of receiving a large quantity of water suddenly into the system.

Deaths from the effects of cold water are not so frequently met with as is generally supposed. Dr. Dickson, of Charleston, So. Ca., says: "I have never seen a death from drinking cold water, nor have I been able to obtain any authentic account of such an event having occurred since I have been engaged in the practice of medicine in this city. Yet here, if anywhere, such accidents should occur. Immense quantities of ice and iced fluids are daily consumed here by persons subjected to the several conditions which are regarded as calculated to favor the morbid influence of the agent in the highest degree. The cases described by Rush, I believe to have been generally cases of isolation, and that, being sensible of rapidly approaching disease, and at the same time feeling an internal heat, the patients were just procuring relief when overtaken by sudden death." Such, undoubtedly, was the case of the sailor above referred to.

The disease is usually stated to be confined to patients of irregular habits; but only a small portion—at least less than one-half of the following cases—could be regarded as intemperate, and many of these had restricted themselves during the day to a single glass of ale or brandy.

The premonitory symptoms are usually slight, and of short duration. A laborer may, perhaps, have been employed until a late hour the previous night, and the next morning complains of a slight headache and a general feeling of languor. He takes his breakfast with less relish than usual, but resumes his or-

dinary duties. But, in the great majority of cases, even these slight symptoms are wanting. They are suddenly seized, while in the performance of their labors, with pain in the head, and a sense of fulness and oppression in the epigastrium, occasionally nausea and vomiting, general feeling of weakness, especially of the lower extremities, vertigo, dimness of vision, and insensibility. Surrounding objects appear of uniform color. In a great majority of cases, this was, so far as could be ascertained, blue or purple. In one instance, everything appeared red; in another, green; and in another, white. One stated that objects retained their natural color, but expressed them as being very beautiful, while to another every thing appeared greatly magnified.

This may be regarded as the first stage of the disease. It is usually of short duration. In the milder forms of the disease, the stupor is only momentary. The patient is at first, perhaps, aroused with difficulty, but he gradually regains his consciousness. If, however, the attack is severe, the patient shortly passes into a state of coma. The skin is hot and pungent to the touch, and by actual experiment, according to the observations of Dr. Dowler, the temperature is elevated to 112° Fahr. The pupils are dilated and insensible to light; the breathing hurried and labored; the pulse is sometimes slow and full—sometimes frequent and feeble, though the action of the heart may continue inordinately strong up to the last moment of life.

In the third stage, the symptoms are those of collapse. The pulse becomes more frequent and feeble; the respiration, which at first was hurried and labored, now becomes stertorous, and accompanied with sighing and moaning; the skin cool, or the surface of the body may retain its natural temperature, though the head may be hot; the sphincters become relaxed; extremities cold; the countenance swollen and livid; the pupils may be dilated, but are often firmly contracted; tracheal râles appear; either the patient is quiet, as if completely paralyzed, or else convulsions, often violent in character, supervene, and he dies suddenly, or he may remain in this condition for several hours.

The first stage corresponds very nearly to that condition described by Southern writers as “solar exhaustion.” Dr. Dowler makes a distinction between this “solar exhaustion” (the *coup de soleil* of northern latitudes) and what he calls “solar asphyxia.” The former he regards as “a mere fainting, in which the face is pale, skin cool, or not above the natural standard, while, in the latter, the skin is burning hot, face flushed, and the mind and body are utterly insensible to impressions.” It runs its course rapidly, and often proves fatal

in 30 minutes. Dr. Cartwright says, the cases of "asphyxia are often incurable from falling into an *incurable* state before medical aid can be obtained"! while those of exhaustion simply, if properly treated, will yield as readily as a case of common intermittent, and almost as fatal as "solar asphyxia," if improperly treated.

The second and third stages, described in the progress of the disease, are so intimately connected that it may seem an unnecessary division; but it is more convenient to regard them separately. They differ usually in the mode of attack, and for this reason some have regarded them as a distinct condition. The stage of collapse is most frequently noticed in those who are seized late in the afternoon, "without the signs of apoplexy," after exposure to the heat and fatigue of the day. But the same condition may occur in those who have been seized suddenly "with the signs of apoplexy," and yet pathologically there *may* be no difference.

Of 60 cases which came under my observation during the past year, 44 were insensible at the time of admission, and 16 were either stupid or sensible. The pupils were dilated in 30, contracted in 19, and natural in 11. The temperature of the body was hot in 34, warm or natural in 14, and cool in 12; while that of the head was elevated in 31, warm in 11, and cool in 18.

The respiration was hurried in 44; the pulse was uniformly accelerated, varying from 100 to 160, and even more per minute. Convulsions were present in 24, delirium was noticed in only a few. 52 of the patients were males. The average duration of the fatal cases was about 4 hours.

The time of the attack in 3 cases was between	8	and 11 A.M.
" " " " " " 40 " " "	11 A.M.	and 4 P.M.
" " " " " " 17 " " "	4	and 9 P.M.

Convalescence is usually speedy, after the severity of the disease has passed, and reaction is fully established, varying from a few minutes to five or six hours; the patient sinks into a deep slumber, and awakes somewhat exhausted, and the cerebral functions disturbed; but this soon disappears. Two patients only complained of severe pain in the head, and at intervals exhibited great forgetfulness for nearly a week; and one was occasionally delirious.

A case was reported to me in which delirium supervened, resembling that of delirium tremens. I can conceive that such a condition may exist, but this patient was intemperate, and had been drinking to excess previous to the attack.

Dr. Pepper reports 20 cases, 10 of which died, and 3 resulted in insanity. This termination was not noticed in over 100

cases received at the New-York Hospital. In the reports of lunatic asylums, however, few cases of insanity are referable to an attack of *coup de soleil*. One patient was delirious, and with the greatest difficulty restrained.

The statistical reports are too inaccurate to furnish any satisfactory data for the mortality of this disease, as no attempt has been made in the reports to distinguish it from "cerebral apoplexy;" but this latter class is, I believe, less frequently met with than was formerly supposed; and that *their* number will somewhat diminish as the facilities for *post-mortem* examinations are furnished, and that by far the greater number of cases included under the head of *coup de soleil* are nothing more than "nervous prostration." About one-half of the cases are usually fatal. The mortality of the past year will, however, be above this estimate.

The total number of cases admitted to this Hospital since 1845, is 150, of which 78 died. The mortality of the cases admitted in 1853 is 33 in 67.

The mortality of hospital practice must be greater than that in private, as very many were admitted in a moribund condition, and died before any treatment could be adopted, while others were rendered hopeless by being brought a long distance, several hours after the attack.

The prognosis will depend on the stage of the disease. In the first stage, the prognosis is usually favorable; much, however, will depend upon the treatment adopted. The symptoms indicating collapse are always unfavorable.

In 33 fatal cases, the pupils were contracted in 20, moderately dilated in 7, and markedly so in 6; while, in the successful ones, the pupils were dilated in 19, and nearly natural in 15. No case recovered in which the pupils were contracted. Mere stertorous breathing is not necessarily fatal; but after the respiration becomes *sighing* and *moaning*, the prognosis is very unfavorable; only two patients recovered after this character of the breathing was present.

To these two symptoms—the condition of the pupil and the character of the respiration—I attach much value; and if other observations shall confirm this, they will furnish the most reliable basis for prognosis.

The respiration was sighing or moaning in 31 of the 33 fatal cases; convulsions were noticed in 24. This is a grave symptom, but 6 recovered after they were present. The pulse alone is no safe criterion of the actual condition of the patient, for it may continue of fair strength throughout the whole course of the disease, with no perceptible alteration either in force or frequency, though the patient may be under the free use of

stimulants. This will frequently surprise those who are unaccustomed to observe it.

A fatal relapse occurred in one instance. This patient was attacked suddenly while at his work, and lost all consciousness. As soon as he had sufficiently recovered, he walked a long distance to the hospital, exposed to the direct influence of the sun. This exertion, combined with his previous prostrated condition, probably induced another attack. He again partially convalesced, but immediately sank into a comatose condition, from which he did not rally.

The pathology of this disease is uncertain. We have as yet failed to discover any satisfactory lesion to account for the phenomena noticed before death. It is now, however, generally admitted to be merely "exhaustion," produced by fatigue—either in the sun, or, less frequently, in a close and over-heated apartment.

The post-mortem appearances, though of a negative character, are precisely opposite those found in "congestion" of the brain or apoplexy produced by insolation—in other words, *coup de soleil*. And it is of great importance that this relation should be correctly understood, for they obviously require an opposite course of treatment. Unfortunately these two conditions are too indiscriminately called *coup de soleil*. Our nomenclature, in this respect, is imperfect, and calculated to mislead those who are unaccustomed to observe it. But we must not infer, simply because a disease has been erroneously called *coup de soleil*, that we have apoplexy to contend with. "It is debility we have to meet, and not repletion." Depletion, which is essential in the one, is almost necessarily fatal in the other.

In some cases we have apoplectic symptoms with those which properly belong to the opposite condition. And we may perhaps be puzzled to know to which class they belong. But even in these cases, we rarely find any lesion. Sometimes there will be found a moderate congestion of the brain, but no more so than we often find in cases where we suspect no lesion of that organ.

The following case may perhaps be interesting, as illustrating this :

An unknown woman was picked up in the street in a state of exhaustion, and brought to the hospital at 8 P.M., Aug. 14th. Nothing could be learned of her previous history. She was completely insensible, pulse frequent (120) and feeble; respiration hurried and labored; skin burning hot; temperature of head elevated; pupils contracted and insensible. The prognosis was unfavorable. Our ordinary treatment was adopted. Sinapisms were applied to the calves of the legs and abdomen,

ice to the head. Stimulating enema of spts. tereb., brandy, and tr. capsici were administered moderately. Frictions with mustard were also ordered. Four hours after her admission, her condition became decidedly worse. The slight convulsive movements of the body, which were noticed at the time of her admission, were more marked and violent, and it was only with the greatest difficulty that she could be confined to the bed. The breathing was exceedingly labored, and accompanied with sighing and moaning—pupils dilated; the pulse very frequent, and scarcely perceptible at the wrist; the countenance swollen and livid; extremities cold; the stomach refused to retain the stimulants. The bronchial tubes became clogged with an increased secretion of mucus; and deglutition was very difficult. The slightest attempt to swallow threatened almost immediate asphyxia. She was ordered injections of brandy and carb. ammonia.

On the following morning reaction was fully established—the pulse 130, but fair strength. The head and surface of the body hot; eyes suffused, red, and injected, fixed and motionless; pupils contracted to a point and inactive; face flushed; countenance swollen and turgid; respiration deep and stertorous; and the patient was completely comatosed. The quantity of stimulants was diminished, and an aloetic enema repeated; ice reapplied to the head, and sinapisms to extremities.

The physician in attendance now regarded these symptoms sufficiently indicative of cerebral congestion to warrant depletion. Ordered a moderate abstraction of blood from the temples by cupping, and the treatment adopted during his absence to be continued. She died 21 hours after admission.

Autopsy 18 hours after death. No marked congestion of the brain or lungs was observed. The heart was flaccid and filled with fluid blood. The liver was much congested—other organs healthy.

This case was, doubtless, one of “nervous exhaustion,” a condition so often mistaken for, and associated with, “cerebral apoplexy,” and it was the only one in which reaction ran sufficiently high to indicate depletion. But even in this the post-mortem disappointed us. I have only seen a few, a very few cases, of insolation verified by a post-mortem examination,—certainly not *one* during the past year, although examinations were made in *all the cases* in which we suspected any cerebral lesion.

The diagnosis of those cases, which simulate apoplexy is often difficult. The remarks of Dr. Condie, though inapplicable to the case just given, may perhaps be generally useful. He says: “In those cases requiring depletion, the head parti-

cularly, and often the entire surface of the body, is hot. The eyes injected; pupils contracted; pulse small, quick, and corded. Tongue red and dry. Patients are delirious, restless, and in a constant state of agitation; and if not speedily relieved by prompt and active treatment, coma ensues, and the patient dies as in acute meningitis."

The true pathology of this disease, like those cases of death produced by lightning, will probably never be correctly explained, unless, perhaps, the microscope may aid in removing the veil of mystery which surrounds it. But it must be remarked *en passant*, that there are many points of resemblance in the appearance of those who have died from the effects of heat, and the cases reported of death from lightning.

Does the heat produce death by destroying the "vital principle," as Hunter supposed was the effect of lightning? Does it produce some chemical change in the blood itself, so that it can no longer subserve the purposes of innervation? or does it produce its effect primarily upon the nervous system. This is the most plausible theory. The vital powers, already enfeebled by fatigue, and the heat of the atmosphere, are unduly stimulated. The natural balance of the circulation is destroyed, and the heart contracts with a "morbid activity." The lungs are engorged with blood, and the heart labors to overcome the increased obstacle, until at length it is exhausted by this "morbid activity," and passive congestion takes place in the capillaries throughout the body.

The pathology of this disease is too obscure and uncertain, and observation too limited, to arrive at any satisfactory conclusions in regard to the *treatment*. It is at best empirical. We regard the disease as one of debility, and we partially treat it as such.

The great practical point to be regarded in the treatment is, that this affection is entirely distinct from *coup de soleil*, as generally understood by the term. It is a disease of "debility," and not one of "repletion." Depletion is generally contraindicated, and stimulants are usually required.

In cases of *Insolation*, the lancet is often employed. But these are very rare. During the summer of 1818, there were 13 cases admitted into the hospital. These were largely bled; 60 ounces were taken from the arm by repeated bleedings; and in one case as many as 80 ounces. And the "recovery in this one was much more marked and speedy." Three of these died, and the post-mortem appearances were precisely those of "cerebral congestion." But in cases of *exhaustion*, I have never seen a patient recover after he had been bled.

This practice is now nearly abandoned. Formerly, nearly

every case treated before admission to the hospital had been bled. But not a *single patient* had been bled of those admitted during the past summer. They do not bear well even the local abstraction of blood by cupping.

The plan of treatment usually adopted is to place the patient in a hot bath, rendered stimulating perhaps by mustard or capsicum—or counter-irritation to the whole body by means of mustard; a stimulating enema of tr. aloes c., or, what is preferable, spts. terebinth; ice to the head *when the temperature is elevated*; brandy and tr. capsici, or even carb. ammonia if required.

The indiscriminate use of *cold affusions* is productive of harm. Injurious and often fatal effects result from them. It is a popular and erroneous idea that a patient, as soon as he is attacked, should be completely deluged with cold water. To employ it in every case would be as absurd as in cases of collapse from any cause.

Another important consideration in the treatment of the earlier stages is *rest*. In crowded cities, to which this disease is mostly confined, this caution is too much disregarded. As soon as a patient is attacked, he should be placed in a horizontal position, in as cool a place as possible, and perfect rest required. Nothing can be more serious for a patient in this condition, than to be carried, as is too often the case, upon an ordinary cart for a long distance, or allowed to remain exposed to the influence of the sun.

The length of this paper will prevent any detailed account of the cases themselves. They were admitted during the attendance of Drs. Joseph M. Smith and H. D. Bulkley, and the treatment adopted during their absence was approved of by them. In conclusion, I desire to express my special acknowledgements to my senior assistant, Dr. John B. Chapin, for his valuable assistance, not only on this, but other occasions.

[*N. Y. Journal of Medicine.*]

On the Use of Hydrochlorate of Ammonia in Coup de Soleil.

By J. R. LEAMING, M. D., Physician to the Northern Dispensary, N. Y.

CASE 1. I was called in the afternoon of June 16th, 1852, to see a man at the Knickerbocker stables, on Eighth avenue, overpowered by heat. He was insensible, breathing somewhat stertorous, pulse slow and weak. Having used muriate of ammonia in the comatose condition of typhus fever with apparent benefit, and believing the nervous prostration in this

case to be very similar, I prescribed it in about 8 grain doses, in solution, every half hour. He was removed to his home and mustard applied to the epigastrium. With some difficulty he was made to swallow the medicine, but in about fifteen minutes after the first dose the stertor ceased. In an hour he was sleeping quietly, and when disturbed, answered questions incoherently. In about three hours, he could sit up in bed and converse, but complained of great lassitude and fullness about the head. The next day he was able to walk out.

CASE 2. I was called in the afternoon of June 22d, 1853, to see a blacksmith who had been sent to his home in 28th street, overpowered by heat. I found him entirely unconscious, without any action of the voluntary muscles, deep stertor, pulse slow and full.

I gave him the ammonia and applied mustard. I left him, but returned in an hour and a half, and was surprised to find the patient sitting up, able to converse. He complained of general lassitude and a dull pain in the head. The next day he was walking about.

CASE 3. I was called in the evening of June 28th, 1853, to see a bricklayer, who had fallen insensible a moment after returning home from his work in the evening. I found him without stertor, but breathing slow and heavily, pulse slow and weak, entirely unconscious. I gave him the ammonia and applied mustard, then sent a messenger for Dr. Tucker, his family physician. In about an hour the Dr. called on me, and requested me to see the patient with him. We found him able to converse, complaining of debility and pain in the head. The medicine was continued, and the patient walked out the next day.

Dr. T. assures me that he has since used the muriate of ammonia, in similar cases, with gratifying success.

CASE 4. August 12, 1853, I was called in the afternoon to see a man in 26th street, suffering from sun-stroke. Mustard had been well applied before I arrived. He was entirely unconscious, labored breathing, pulse weak and frequent. I gave him the ammonia, and when I returned, in about an hour, he was sitting up.

My notes of these cases are very meagre, but the impression left on my mind at the time, and by other cases of which I have no notes, is, that the ammonia produced speedy and satisfactory relief. If the pathological condition of sun-stroke be excessive nervous exhaustion, as I believe it is, diffusible stimulants are indicated, and I think the muriate of ammonia is the best. The patient should not be bled, ice should not be applied and continued to the head. The face and temples may be

sprinkled, or sponged with cold water. Mustard should be thoroughly applied, the extremities kept warm, and muriate of ammonia dissolved in cinnamon water, given at short intervals till consciousness is restored, and afterwards at longer intervals, till the sensation of pain and fullness in the head has disappeared.—[*Ibid.*

Observations upon Primary and Secondary Amputation. By
Professor W. STONE, M. D., of New Orleans.

The principle of immediate amputation, although beyond all doubt correct, has caused the loss of countless limbs unnecessarily, and, I believe, of as many lives as it has saved. The error, evidently, is from over-estimating the security afforded by primary over secondary amputation. The first duty of the surgeon certainly is to secure, if possible, the life of his patient; and the second, to preserve as much of his person in as perfect a manner as possible. In the anxiety to fulfil the first duty, by over-estimating the security which amputation affords, limbs are often sacrificed that are curable, and by disregarding the proper time for amputation, a life may be lost that would have been safe without an operation. In severe injuries of the extremities, if fatal, death is produced either by the concussion, or subsequent pain and suppuration which exhausts the patient; or it may occasionally be from tetanus or gangrene. Against the first cause of death, amputation affords no security, on the contrary it favors it. The question of amputation before reaction, I believe, is settled by every American surgeon of experience in the negative. This subject was sharply discussed in England on the occasion of the death of the celebrated statesman, Huskisson, who had both legs or thighs crushed on the Liverpool and Manchester Railroad. The Liverpool surgeons attempted to bring on reaction, but every means failed, the concussion had thrown him into a fatal collapse. The London surgeons took the matter up, blaimed the Liverpool surgeons, and urged that immediate amputation should have been resorted to, and talked nonsensically of the stimulus of the knife. When one hears such reasoning, he feels the truth of the remark made by some one in the last century, that surgeons were bad pathologists and worse physiologists.

In severe injuries, where the patient is thrown into collapse, and amputation is necessary or unavoidable, if the case is critical, it is a nice point to decide when, exactly, it can be performed with the most safety. If the patient were in great agony and amputation could relieve it, there could be no doubt of the propriety

of amputating at once, no matter what the state of the pulse might be ; but this is not the case, the shock has been received, the mischief has been done, the parts are in a measure paralyzed, and no very severe pain takes place until reaction. The question in such cases is, whether the injured limb is a greater source of pain than the stump would be after amputation, and considerable allowance should be made for the shock of the operation. The discovery of chloroform enables us in a great measure to avoid the shock of the stimulus of the knife, but not entirely. My experience is, that when amputation is unavoidable, it is best to do it as soon as reaction has fairly commenced, while the patient is under the influence of the first shock of the injury, the pulse flickering, etc. ; any disturbance of the system, pain or loss of blood, might cause a fatal collapse in a case that would be perfectly safe, managed with tact and judgment. By reaction, I do not mean a full resistant pulse. The nervous system receives the shock and is the first to react, as is shown by the increased sensibility and improved capillary circulation before any perceptible improvement in the pulse is observed ; this, however, soon follows, and the pulse becomes more steady. When the system is suffering from a severe injury, it is often the case that stimulants do not act as such when put upon the stomach. In extreme cases, when the patient is in danger from collapse, it is evident to me that the stomach does not absorb, but is nauseated, and all the depressing effects of nausea are produced. The rectum can scarcely be said to sympathize with the system in general, and always preserves an active absorbing surface. Stimulants given by injection produce a ready effect, and I always use my stimulants in this way where the patient is in danger, even when he is perfectly able to swallow, for they are much more prompt and effective. If too long a time elapses, after an injury, before amputation, the sensibility of the limb, which at first was partially paralyzed, becomes highly exalted, and although we can, by the use of chloroform, prevent the shock from the operation, we have a fresh wound in parts in a morbid state ; the stump is much more painful, and as a general rule does not do as well as when the operation is performed earlier. By the above, I mean a state of the parts before any decided inflammatory action has taken place, and my firm conviction is that where no large joints are involved, or parts injured that will give extreme pain to the patient, he will have a better chance for his life if we give him a chance for his limb also, even if we have to resort to secondary amputation ; I mean if the most favorable period for operating has passed.—[*New Orleans Med. News.*]

Treatment of Cholera by Muriatic Acid, &c.

Dr. Caron reports most favorably of the effects of this acid, with bark, calumba, &c., in many cases of cholera. He gives the following formula for the preparation:—Vinous tincture of cinchona, twenty-five parts; tincture of orange peel, three parts; tincture of juniper, three parts; tincture of calumba, three parts; muriatic acid, four parts; mix. He considers its effects to be tonic, anti-spasmodic, and slightly excitant. According to the nature of the case, the intensity of the symptoms, and the patient's susceptibility, he employs it in doses of a small spoonful every quarter of an hour, every half hour, or every hour; in some instances, to favor its tolerance, syrup of tolu or of poppies may be added. The first effect of this medicine is a sensation of warmth in the epigastrium, which speedily extends over the body; the vomiting moderates, and finally ceases; after the fourth or fifth dose, the alvine ejections generally diminish in quantity and frequency; and the secretion of urine is re-established, but more slowly. The indulgence of thirst, by the free use of cold water, Dr. Caron considers productive of most serious consequences; and even in cases which otherwise promised a favorable issue, he has seen it prove fatal. He does not advise the acid to supercede the employment of other suitable treatment, as general and local rubefacients, sinapisms, frictions, &c. He further states that, in the hands of M. Malin, muriatic acid, combined with opium, has been found effectual in the treatment of dysentery.—[*Gaz. des Hop. Montreal Med. Chronicle.*]

EDITORIAL AND MISCELLANY.

Remarks upon the use of Pessaries in the Treatment of Prolapsus Uteri.

BY THE EDITOR.

We took occasion in one of our preceding numbers (January, 1854, p. 61) to animadvert upon the injurious effects of the various modifications of the, so styled, "Utero-Abdominal Supporters," and endeavored to show that they must exert an influence upon the pelvic organs directly the reverse of that for which they are specially designed. Whether our arguments have been deemed conclusive or not, by all our readers, we are not able to determine. We have, however, seen no attempt to refute them. Yet, some of our correspondents have asked us by what means we would remedy prolapsus or procidentia uteri; and, apparently taking it for granted that some *mechanical* support is necessary in such cases, have requested us to indicate the kind of pessary to which we would give the preference.

We beg leave to lay our reply before the readers of this Journal, in the hope that attention may be directed to a subject we have long deemed of great importance in a curative and likewise in a moral point of view.

As, with reference to literature, it has been observed by a no less witty than sagacious rhetorician, that "*la critique est facile, mais l'art est difficile*," (criticism is easy, but art difficult,) so may it be said with regard to plans proposed for the management of disease, that it is more easy to object than to remedy. We accordingly find no difficulty in making out an argument against the use of the pessary, at the same time that we may not be able to suggest any very effectual relief for the affection in which it is used. If we can succeed in establishing the fact that the pessary, in neither of its multiplied varieties, can be beneficial, but must, on the contrary, be more or less mischievous, we think that an important advance will have been secured—a worthless practice will have been rejected, and the mind of the practitioner left free to seek something better.

Before we can appreciate correctly the effects of the pessary, it is necessary to take into consideration the mechanical and pathological causes which induce the uterine displacement. In doing so, we shall make no reference to written authorities, but be guided alone by the dictates of common sense. When a female stands erect, the uterus is maintained in its proper position by its attachments and by the approximation, more or less complete, of the vaginal parietes. These are the physiological forces opposed to the influence of gravity and of the downward pressure by the abdominal contents, when these are thrown upon the pelvic axis. In virgins, therefore, the tonicity of whose vagina and uterine attachments has suffered no impairment by extension, we find prolapsus uteri to be of very rare occurrence; whereas it is most frequently met with in those who have borne many children and whose tissues are naturally deficient in firmness. The relaxation of the uterine attachments and the flaccidity of the vaginal walls are in some instances such as to afford no support to the uterus, and consequently to allow it to fall more or less considerably whenever the female stands or walks. The os tincæ may then either rest upon the perineum or present itself at the vulva.

In laboring women, our female field hands for example, the displacement is not unfrequently occasioned by the powerful action of the abdominal muscles, forcing down the abdominal upon the pelvic viscera, and thus overcoming the physiological resistance of the vagina and uterine attachments which would otherwise have been sufficient to prevent the prolapsus. Women should therefore abstain from

great muscular efforts, and, in the case of our field hands, should not be allowed to use the axe nor to carry heavy baskets of cotton.

Such are the usual circumstances under which we believe prolapsus uteri to occur. It is true, that some imagine that it may be induced by the increased weight acquired by the uterus in consequence of morbid enlargements. While we are not prepared to deny this, positively, we doubt it very much, seeing that it does not occur under the influence of impregnation. We would rather, in such cases, regard the descent of an enlarged uterus as merely coincident with abnormal relaxation, and as insufficient in itself to overcome a healthy degree of resistance. To suppose, with some, that a mere engorgement, or even ulceration of the os tincæ, may be the cause of prolapsus uteri, is simply preposterous.

Let us now see what are the evil effects of prolapsus uteri. One of the first and most common indications of such a state of things is a sense of heaviness or of downward dragging about the uterus, which increases upon walking or taking exercise, and proves more or less inconvenient, according to the sensibilities of the patient. Hence a degree of prolapsus which might pass unnoticed by those who are less irritable, may become a source of annoyance to the sedentary and nervous ladies of the city. In some cases, the sensations just stated are attended with a feeling of weakness or pain in the loins, and more or less tenderness, with or without pressure, in the lower part of the abdomen, just above the pubis. This is probably induced by the traction exercised upon the peritoneal folds attached to the uterus and its ligaments, followed by irritation of this highly sensitive serous membrane. We are aware that this soreness is, by some, supposed to exist in the uterus itself. The prompt relief derived from recumbency, as well as by pushing up the uterus with the finger, would seem, however, to corroborate our views, independently of other considerations. It is indeed difficult to understand, otherwise, how a mere descent of the uterus could induce, *per se*, pain or tenderness of this organ; still less can we admit that such a state, unless in cases of actual procidentia, can be the active cause of ulceration or phlogosis of the os tincæ. These we regard as coincidences, and not as effects of the displacement; yet the frequency with which they are met must have a very important bearing upon the treatment, especially by the use of the pessary.

We are now prepared to estimate, understandingly, the value of pessaries for the relief of prolapsus uteri, in its simplest form, as well as prolapsus complicated with organic lesions of the uterus. The

difficulty of getting a pessary that can be tolerated by the patient, or even worn without material inconvenience and injury, has led the advocates of its use to tax their ingenuity to the utmost for the invention of new forms and new principles of action. No person has yet succeeded, however, in designing one which unites the approbation of all practitioners—and the pessary most highly valued by one physician of distinction, may be condemned unqualifiedly by another of equal reputation. We cannot say how it is in Europe; but we doubt that, of the leading obstetricians who, in our country, use the pessary, any two can be found who recommend the same variety of this instrument.

We may, perhaps, accomplish our purpose by adverting to the principal forms which are typical of sub-varieties. We find then pessaries in the form of a disk, others globular, and some consisting of an elongated vaginal plug; all of which support the uterus at the expense of pressure upon the walls of the vagina. Whether they be made of metal, glass, wood, caoutchouc, wool, sponge, or other material, the mechanical principle remains the same: the *os tincæ* rests upon a foreign body, which is itself sustained by the vaginal parietes, and by immediate pressure upon an exquisitely sensitive and irritable mucous surface. Fully appreciating the objections to these forms of the instrument, some practitioners resort to the expedient of *stem* pessaries, the lower extremity of which may be sustained by bandages more or less complicated.

By the stem pessaries we certainly avoid the consequences of pressure upon the vaginal walls; but the contact of the *os tincæ* with a foreign body of sufficient resistance to support the uterus, still remains, and is very properly deemed injurious by some. In order to obviate this objection, therefore, the uterine extremity of the stem pessary is made to consist of a ring through which the *os tincæ* hangs as through a collar. It will be observed, that by this modification the point of contact is merely removed from the mucous surface of the *os tincæ* to the mucous surface adjacent, which is probably quite as irritable, and certainly more sensitive.* A serious objection to the use of this pessary, is the liability to injury by inadvertently sitting in such a manner as to bear upon the stem and to thrust the instrument abruptly against the uterus.

To resume: Every form of pessary bears upon one or more points of the mucous surface with a force equal to that necessary to support the uterus in its proper position, although the sum of this force

* M. Jobert's observations go very far to prove that the *os tincæ* is nearly, if not quite, insensible, though not devoid of irritability.

must vary very much, according to the degree of relaxation of the natural supports of the organ and the downward pressure of the abdominal viscera. All pessaries, with the exception of those provided with a stem, exert compression upon both the os tinæ and the vaginal walls. And, finally, the stem pessaries come in contact with either the os tinæ or the adjacent vaginal surface, according to the mode of their construction.

Several questions now present themselves: 1st. Are these mechanical contrivances adequate to the support of the displaced uterus? 2d. Can they be tolerated without more or less injury to the surfaces of contact? 3d. Does their use remedy the state of things by which the prolapsus is occasioned? The reply to the first query must be in the affirmative: the uterus may unquestionably be maintained in its proper place by a pessary. The second question, however, cannot be so unequivocally answered. The pessary must evidently be intolerable or injurious whenever the surfaces of contact are in a pathological condition, which we know to be not unfrequently the case. It is true, that when the os tinæ is alone affected, the ring and stem pessary may be used; and the cup and stem pessary may be reserved for cases in which the lesion exists in the vaginal membrane only. But may not the ring pessary aggravate the lesion of the os tinæ by its constriction or strangulation of the capillaries so near the seat of disease? And may not the irritating contact of the cup and stem pessary occasion an extension to the os tinæ of the pathological condition of the mucous surface in its vicinity?

Whether the pessary can be used without injurious effects in cases of simple and uncomplicated prolapsus, is another branch of the question. The answer, here, would depend very much upon the length of time deemed necessary to use the instrument; for while its contact for a short period might induce no serious disturbance, it must be admitted that persistent or continuous pressure upon any living tissue, and especially upon a mucous surface, cannot be long endured without pain, irritation, inflammation, and even ulceration. If the mucous surfaces in question constitute an exception to the general rule, we have yet to learn the fact. Is the result of *experience* invoked?—are we told that the application of a pessary is often attended with *immediate* relief, and that many women have worn them with impunity for weeks and months? We shall not insist upon “the fallacies of experience,” nor do we feel disposed to reject the testimony of honorable men, of men who have nought but the welfare of their patients at heart. We therefore readily admit, that in cases in which

the traction upon the peritoneal folds implicated in the support of the uterus, has made this serous membrane the seat of the soreness referred by patients, (and occasionally by physicians themselves,) to the uterus—that, in such cases, immediate relief may be obtained by recumbency, or by pressing up the uterus with the finger. The same relief may be derived from the application of a pessary. But is *temporary* relief all the patient needs under such circumstances? If so, she can obtain it as effectually by remaining upon her couch a few days. It is true, that with a pessary she may *walk about* without serious inconvenience a few days. Yet, we must insist that the object of the conscientious physician should be, not temporary, but permanent relief; not such a patching up of the case as will ensure his re-call in a short time, and place the patient under the disagreeable necessity of submitting to repeated manipulations highly revolting to delicacy, however much this may be tempered by reason. The mere relief of a sense of heaviness, lassitude, or even positive pain, is but a small part of our duty; and if this can be done without resorting to the pessary, we cannot admit the propriety of a measure which certainly does violence to every sentiment of modesty. Whatever may be the *experience* of others, *we* have never had any difficulty in securing this relief, by means of recumbency and suitable lotions, in a few days, as effectually as ever did those who substitute the pessary for these simple means.

If it be now alleged that the pessary accomplishes more than the relief to which we have just alluded; that it *cures* prolapsus uteri, its claims to our respect become more serious. Did you, reader, ever *see* a case of *real* prolapsus uteri *cured* by the use of a pessary? Did you ever see a woman in whom it was at one time *necessary* to introduce a pessary, who did not need it as much at some subsequent period? *We* have never known a case of prolapsus uteri *cured* by this instrument, nor have we ever known its use to accomplish any thing more than the temporary relief already admitted. We have, however, known many cases in which the pessary had been used repeatedly, and for a long time, without any benefit whatever, or with decided disadvantage, until, when the patients, wearied with the remedy, as well as with the pertinacity with which its farther use was insisted upon, would announce themselves cured in order to get rid of the importunities of their adviser. Subsequently, coming under the care of another practitioner, they would candidly acknowledge the above history. Every man who has long practiced medicine must know how extremely difficult it is to appreciate correctly the true effect of any remedial agent;

to discriminate between coincidence and effect; or even to determine whether his prescriptions have been faithfully carried out or not. Who has not encountered cases in which he was attributing his success to remedies which he subsequently ascertained had never been taken? And the more unpleasant the prescription, the more apt will the patient be to practice deception. We know of no prescription more apt to be disregarded, after one or two applications, than that under present consideration. This is the result of our own observation, and of that of many practitioners and non-professional persons of intelligence with whom we have conversed. We do not deny that many women, when once imbued with the idea that they have "a falling of the womb," will submit, with heroic sacrifice of feeling, to endless treatment of this kind. And, unfortunately, the influence upon the mind of any kind of uterine disease, real or imaginary, is such as frequently to amount to a monomania, under which the sufferer becomes a ready prey to the artifices of the charlatanical "womb doctors" who infest large cities, and may occasionally be found in more circumscribed spheres.

We insist that the use of pessaries does not and cannot remove the cause of prolapsus uteri; viz., relaxation of the physiological supports of the uterus. In the first place, unless all our principles of physiology and of pathogenesis be erroneous, the presence of a foreign body wedged into the vagina and against the os tincæ, with sufficient force to obviate prolapsus uteri, and continued for any length of time, must necessarily induce a pathological condition of the mucous surface, more or less serious, if there existed none before, and materially aggravate such as may have been present previously. This is so self evident that no argument can be adduced against it, save such as may be derived from *experience*—of the value of which we have already spoken sufficiently.

Pessaries *cannot* remove the relaxation upon which principally depends prolapsus uteri, because instead of increasing the tonicity of the tissues, they lessen it. This is especially true with regard to every variety of pessary, except those provided with a stem. All the instruments of the kind which derive their support by resting upon the vaginal walls, whether their form be that of a disc, of a globe, or of a plug, must of necessity dilate the canal and thus impair its powers of resistance—the contractility of its muscular fibres and the elastic retraction of its other tissues will be diminished to such a degree that the size of the instrument itself will soon have to be increased. And yet we are asked to believe that a canal thus dilated to the uttermost and relaxed in a corresponding degree can, after

ceasing to use the pessary, prevent the descent of the uterus which it could not accomplish before; in other words, that the prolapsus can be *cured* by dilating the vagina! We must confess that our credulity is not adequate to the requisition. We have already observed that our experience is utterly opposed to the admission of that of others.

We have thus, in a very unsatisfactory manner, we admit, (for our remarks have been written hastily and without time for revision) thrown together the principal objections to the use of pessaries. It remains for us to answer that portion of our correspondent's inquiry which relates to the plan we would recommend in lieu of both the "utero abdominal supporters" and the pessaries. In doing this we must be brief, for we have already far exceeded the limits we had at first proposed to ourselves. Rejecting all mechanical appliances in cases unattended with *proidentia*, we limit our endeavors to the improvement of the general stamina and of the local tone in particular. The internal administration of tonics will usually accomplish the former indication, and the horizontal position for a short time will favor the action of local applications in subduing the unpleasant sensations. Irrigations of the vagina with tepid emollients by means of a *large* syringe (not the miserable little instruments in common use) should be made three times a day, until the irritation be subdued; after which we may resort to cold water in the same manner, and subsequently to astringent solutions. The cold hip-bath, with or without the cold shower-bath, according to the general state of the patient, will be found of material advantage in bracing the tissues. The female being admonished to avoid such muscular efforts as may impel the uterus downwards, and being apprized that the infirmity will not lead to serious consequences if managed in this manner, will cease to be in a state of continual mental anxiety, and may get through life with a degree of comfort utterly at variance with the mechanical treatment.

In cases of *proidentia*, such as we often meet in the laboring classes, in which every muscular effort brings the os tinea in the vulva or still lower, to be chafed beyond endurance, we would still resort to the above plan for subduing irritation and bracing the system, after having replaced the organ by digital manipulation, or by causing the patient to elevate the pelvis by resting a few minutes upon her knees and breast. In addition to these means, and looking to the necessities of one who cannot afford to dispense with daily labor, it becomes necessary to offer some obstacle to the protrusion of the uterus. We know of only two methods of accomplishing this; the

one is palliative—the other radical. The former consists of a perineal bandage and pad, which, by forcing up the perineum, will effectually, (if well applied) close the vaginal orifice and thus allow the ostiæ to rest in contact with a natural and lubricated surface without serious discomfort.

The radical treatment is *episiography*, or the closure of the lower half of the vulva by denuding the surfaces and maintaining them in apposition by means of quill sutures, until their perfect union be obtained. This operation is, we are aware, repugnant to most women; but this is principally because of an erroneous appreciation of its effects. It does not impede sexual intercourse, nor even impregnation and parturition, inasmuch as women have borne children after its performance, without inconvenience. We have ourselves performed the operation with the happiest results, and have long felt surprised that it is not more common, especially upon our plantations. We have known field hands, who were utterly incapacitated for their duties, thus restored to complete usefulness in a short time.

In conclusion, we must beg the indulgence of our readers if we have not done justice to the subject, or if we have, in our eagerness to impress our faith upon others, evinced too much incredulity with regard to the views and practice of men who stand deservedly high in the estimation of all. We are all fallible, however, and if we may perchance succeed in opening the eyes of any of our professional brothers to a common error, we shall have accomplished all we have a right to expect.

Poisonous effects of Soda Water from Copper Fountains and Lead Pipes. By R. OGDEN DOREMUS, M. D.—Having within a few days, had several friends relate their sudden illness after taking a single glass of soda water, and suspecting some poisonous impregnation to be the cause, I was induced to obtain several gallons of this favorite beverage, from different parts of the city, and to submit them to a chemical examination.

The substance which first attracted attention was *copper*.

This was very abundant in soda water obtained from several obscure shops, where it was presumed the traffic was limited, and consequently the acid water remained longer in the copper condensers. It was so evident that, on boiling off the excess of carbonic acid gas, a green scum made its appearance, which, on further evaporation, settled. This was carbonate of copper, previously held in solution by the carbonic acid.

The amount of metallic copper in a quart was one grain and a half!

Soda water obtained from the same establishment on different days, was found to contain varying amounts of the poisonous carbonate.

The source of this copper, and the cause of these differences, may be accounted for in several ways.

The copper condensers purport to be tinned internally; but where they have been in use a long time, the tin, by chemical and mechanical action, has been removed, at least in part; thus exposing a surface of copper to the corrosive action of the carbonic acid, aided by sulphuric acid, which is occasionally found in the soda water.

Although the carbonate of copper is insoluble in *pure* water, it is capable of being held in solution in water highly charged with carbonic acid gas; for the soda water which yields this green scum after discharging the gas, is clear and colorless previous to the operation.

The soda water drawn shortly after changing the condenser, would necessarily yield less copper on analysis, than that obtained from the same fount after having several days to exert its corrosive influence. Again, the tinning (for all are professedly thus lined) would be more perfect in some than in others—dependent not only on the length of time the condensers had been used, but also on the completeness of original coating. I have been informed that, in order to facilitate the flow of the tin, soft solder is at times resorted to, or the copper is washed with a salt of mercury. Under these circumstances the chemical and electrical action would be rather complicated, and the soda water possessed of remarkable *medicinal virtues*.

The second poisonous compound which, from its abundance, demanded investigation, was a white precipitate, the carbonate of lead. This was found, to a greater or less amount, in most of the waters examined.

In the quart whence the grain and a half of copper was obtained, 0.65 of a grain of metallic lead was found.

The chief source of this impregnation is the lead pipe used in many fountains to convey the carbonated water from the condensers to the jet.

It is an established fact, that the free carbonic acid found in spring waters, is capable of dissolving or facilitating the solution of many of the salts of lead, such as are found encrusting lead pipes which have been used for conducting said waters.

By the investigations of Dr. Ellet, published in this city last year, it was clearly shown that even the trivial amount of carbonic acid found in Croton water, is sufficient to act upon the lead-pipes.

This lead may be readily found in any kettle which has been used for boiling the Croton water passed through a lead-pipe, by adding a little acetic acid to it. The acetate of lead will respond to sulphuretted hydrogen, by assuming a black tint (the sulphuret of lead,) or a yellow tint with the iodide of potassium, etc.

Since carbonic acid is possessed of such solvent powers, soda water, which is surcharged with it, must become poisonously contaminated by contact with lead, either in the pipes or the soldering; and as much of the tin of commerce is alloyed with lead, even this metal, to which we look for protection, may be another source of evil.

Many are impressed with the belief that the first few glasses may

be impregnated with lead to an injurious extent; and hence the custom, in the more respectable establishments, of discarding the soda water which is first drawn, and has lain in the tube over night.

Wherever lead pipes are used to conduct the water to the jet, and especially where in order to secure a cool draught, from thirty to sixty feet of lead pipe are coiled in a tank and covered with ice, the highly acid liquid must necessarily dissolve the metal, and communicate the poison to all contained within the condenser.

These remarks are not applicable to pipes of pure tin, or of lead properly coated with tin.

I have examined the soda water obtained from a manufactory where it is bottled, but could discover neither copper nor lead.

The effervescent liquid which is at times "palmed off" upon the public, made by forcing atmospheric air into water (most truly, "aërated water,") would from the very want of the carbonic acid, be nearly free from these contaminations.

It might be asked, "If these poisonous bodies exist in soda water, why are not the effects more commonly known?" I would reply, they are more generally known than is supposed.

Since commencing these investigations, I have learned from several medical friends, that a coppery taste, violent vomiting, colic pains, purging, etc., have not been uncommon results from such draughts; and most with whom I have conversed, have experienced these effects personally.

In Dr. Mitchell's Therapeutics, mention is made that soda water from old copper fountains is strongly marked with the copper taste.

My assistant informs me that five years since, while in a drug store, he observed that vomiting and other symptoms of poisoning by copper, followed frequently after drinking soda water, and that many thought it was cholera; and after being similarly affected himself, he tested the water and found copper.

I am informed by a resident of St. Louis, that while the cholera prevailed, most persons abandoned the use of soda water; it was a common remark, "Mr.——— took a glass of soda water, and was immediately attacked with cholera."

Probably the syrups which are the usual accompaniments of the soda draught, act in many cases as an antidote; for although the efficacy of sugar in this respect, as originally proposed by Duval, was denied by Orfila, it has lately been reasserted by Postel.

I regret that, for want of time, I have not been able to complete other experiments on this subject; yet, as I am convinced that in many cases this poisoned soda water has proved the exciting cause of cholera in those predisposed to this disease, and in others that it has by its inherent properties been injurious to health or destructive to life; and as at this time the cholera question is again agitating the public mind, I have thought it advisable to relate the results of this partial investigation.

With the knowledge of these facts, we may conclude that although soda water may be retained in a *well-tinned* copper condenser, and

discharged through a *thoroughly tinned* lead pipe, without poisonous impregnation; yet as any imperfection in the tinning of either, or long or careless usage may expose the copper or the lead (or both) to the solvent powers of this carbonic acid, and thus render the beverage dangerous, therefore these vessels should be discarded or only permitted in the hands of trustworthy persons.

Condensers of stone, of iron, or of the purest block tin supported by iron bands, or of gutta percha, aided in a similar manner, would be free from poisonous impregnation. Conducting pipes of these latter materials are likewise unobjectionable.

In another paper I shall present the results of more extended investigations, and shall be indebted to any physicians or pharmacutists who feel disposed to assist in this work of common interest, by favoring me with reports of cases, or samples of suspected liquid for analysis. If those engaged in the fabrication of this article would afford an opportunity of examining some of the old soda fountains, it might aid materially, and perhaps result in the suggestion of better methods of protection.—[*American Medical Monthly*.

Hints for Young Doctors. By C. D. GRISWOLD, M. D., of New York.—For ten years, I have led a somewhat variable and busy life, always devoted to the interest of my patients—when I had them to care for—and my profession: yet notwithstanding my predilections for the use of the pen, I have seldom contributed anything of my experience, or inexperience, to strictly professional journals; preferring always to read for my own instruction, rather than to write for the information of others. The principle is wrong, although it is better to be silent than to affect to be overwise.

How much more attentively we watch the different phases and behaviour of a disease, when it is our intention to report it—how much more definitely each symptom is impressed upon the memory; and with what readiness its stages and the treatment may be recalled at any time afterwards. In this way a habit becomes confirmed, and holds good in all cases. In travelling formerly, I noticed everything for the purpose of giving a description. Nauvoo Temple has long since been crumbled to the earth; yet the peculiarities of that structure, and the ground and beautiful scene I looked out upon from its tower, are still distinctly visible in my recollection. The habit of observation thus formed, has led me ever since to the upper deck of a steamboat, or the top of a stage coach, that I might look out; and to detest cars, because they shut me up.

There is more *utility* in this habit of close observation, than most physicians are inclined to acknowledge in practice. I can remember distinctly the details of cases that I attended years ago, with the modifications in the treatment to meet indications—I held in view, and do still, intend to publish them—and yet I have by no means a retentive memory upon general subjects.

This habit any one can acquire by proper discipline, and it is one exceedingly important to the physician. The young physician who

writes out his cases, will be most sure to read the reports of others, and in this way his experience will be trebled in value, besides most likely escape that worst of all obstacles to progress, routine habits of practice.

In reading your Journal, which I always do with interest, I seldom pass over the report of a case ; and if I know it to be from the pen of a young physician, I peruse it with a sort of "do by others as you would that they should do by you" principle—respect and encourage them by reading their productions, as we would cherish the memory of one departed—although both alike are obvious to our good intentions. In this way we not unfrequently fall in with good ideas, which like seed sown, spring up at a future time and multiply.

As I shall have no room in this for a "report," as I had intended, I will add one other hint for such of your readers as may be younger than myself, and put off the "case" to another day—or rather night.

In the first place, write out all your important cases ; if time will not admit its being done immediately, keep thinking them over with that intention. When this is done, if you find any of them to contain facts which you believe to be of value, send them to a publisher, post paid. Do not make the mistake that many young writers do, by sending to the largest and most important Journals, for such are usually supplied with more matter than they can print ; and therefore, in all probability, in such a case your production would never find a place in their pages, and you would most likely get discouraged with the first attempt. On the contrary, send your articles to a small Journal first, or to a new one that has little patronage—of which there are an abundance thankful for small favors ; and in order that you may be sure to see them if printed, it is a good plan to enclose the subscription price with the production, and but very few if any comments, aside from your name and address plainly written. Draw no inferences on your cases—your readers will do that, and save you your time, and paper, and likely enough no small amount of future regrets—but simply the medical facts, plainly and concisely stated. Remember, if you have any desire to see your article reprinted in other Journals, that it never will be if *long*. Follow these rules perseveringly, and you will ultimately not only succeed as authors, but as good physicians.

A regular medical man told me, not long ago, that he subscribed for but one Journal—and that I will not mention—which he never found time to read. Now I shall remember this man as long as I do the Nauvoo Temple, for I have a habit of remembering such "cases." I shall never apprehend, on meeting him, that he has seen this comment for did he read this Journal he would know better than to make such a statement.

I remember calling on Dr. John W. Francis, late one evening, and finding him in bed, he not being very well ; yet his light was safely arranged, and within reach there was reading matter enough to last all night. If there is no other time, an hour may be spent nearly every night in reading, before the eyelids drop ; and he who culti-

vates his intelligence, as a physician should, will improve even this hour, if he has no other. If you do not read, never tell of it, for it is more creditable by far to have time for this, than too much business.

[*Boston Med. and Surg. Journal.*]

Method of detecting whether Olive Oil or other Non-Drying Oils have been adulterated with Poppy or other Drying Oils.—Nitric acid has the property of converting the oleine or the liquid constituent of almond, olive, and other non-drying oils into a crystalline substance, termed elaidin, while it has not the same action upon the drying oils. Winmer has accordingly proposed a process to detect whether olive or almond oil has been adulterated with any of the cheap drying oils, founded upon this property. He introduces some iron filings into a flask, provided with a cork, into which he inserted a long bent tube, and then pours some strong nitric acid upon them; a part of the nitric acid will be decomposed, and nitrous acid fumes evolved, which pass off by the bent tube, and are made to pass through a sample of the oil to be examined, placed in a glass with a little water. In performing the experiment the end of the tube must be just in contact with the water upon which the oil is made to float. In a short time the whole of the non-drying oils will solidify into a semi-crystalline mass, while any poppy or other drying oil, if present, will float on the surface. In a similar way the adulteration of drying oils with non-drying ones can of course be detected.—[*Month. Jour. of Indust. Progress.*]

Chronic Urticaria.—A severe case of this eruptive disease was lately successfully treated by Mr. Startin, at the *Hospital for Skin Diseases* London, in the following manner:—℞. Quin. disulph., gr. xij; am. sesq. carb., 3j.; magns. carb., ℥ss.; aq. pur., ℥viij. Ft. mist. A tablespoonful to be taken thrice daily.

The quinine in this formula is undissolved, and is held in suspension by the magnesia. Mr. Startin advises the use of dilute nitric acid to relieve the itching, as being equally efficacious as the hydrocyanic acid, and much less expensive.—[*Virginia Med. and Surg. Jour.*]

Rheumatism.—We recommend to our readers the following prescription for the cure of this most unmanageable disease:—℞. Liq. potassæ, gtt. xv.; potass. iodidi, grs. ij.; mucil. acaciæ, 3j.; aq. distill., 3xi. M. ft. haust.—℞. Potass. iodidi, ℥ij.; morph. muriat., ℥ss.; ung. cetacei, ℥iss. Ft. ung.—℞. Opii. purif., gr. j; extr. colch. acet., grs. ij.; pulv. scam. co., grs. iij. M. ft. pil. ij.—[*Ib.*]

Pityriasis of the Scalp or Dandruff.—In two cases of this disease of the scalp occurring in patients in the Middlesex Hospital, glycerine was found effectual in clearing away branny scales from among the hair. It is used as a hair oil, once or twice a week. Mr. Shaw (*Med. Times and Gazette*) states that he has often used it with great success.—[*Ib.*]

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ORIGINAL AND ECLECTIC.

ARTICLE XXX.

The importance of Local Treatment in certain Female Diseases.

By JNO. STAINBACK WILSON, M.D., of Airmount, Alabama.

When very frequent and almost uniform lesions of the mucogenital tissues, in a class of affections considered heretofore as constitutional and functional, have been conclusively demonstrated, by a host of the most intelligent and distinguished pathologists, it would seem to be supererogatory, if not presumptuous, to attempt a further elucidation of the subject,—and, indeed, we disclaim any such design; our object will be to give a summary of the most important evidence in favor of what may be termed the local, organic, uterine pathology of Leucorrhœa, Dysmenorrhœa, Menorrhagia, &c.; and we will then endeavor to inculcate the importance of certain therapeutic measures founded on this pathology: in short, we will strive to show the great advantage, and the indispensable necessity, of local remedies in the management of the interesting, very common, and often intractable diseases above mentioned. With such a bright array of names as those of Recamier, Lisfranc, Dupuytren, Gendrin, Duparcque, Gilbert, Kennedy, Murphy, Locock, Roberts, Bennett, and others scarcely less celebrated, all of whom have ably advocated the “organic pathology,” we might safely rest the evidence, had not the equally distinguished Robert Lee, Ashwell, Tyler Smith, Hall, and some others,

denied the correctness of the statements made by the first mentioned writers, and denounced their favorite instrument, the speculum, as immoral, indecent, unnecessary, and destructive in its tendency. But, in addition to these contradictory opinions, there are other very forcible reasons why the pro-organic evidence should be adduced, and they are these:—A mere opinion or name cannot be received in lieu of established facts; again, this “organic pathology” is comparatively new—is yet in its minority, while at the same time it is forced to wage a contest against its hoary rival, the constitutional or functional pathology, fortified, as the latter is, by all the prejudices and prepossessions of early education; and lastly, we think that it is proper and necessary to sum up this evidence, because it tends to confirm, what we believe to be, one of the most important truths, in practical medicine, to which the present century has given birth. We will then, briefly, present the views of Dr. J. H. Bennett, and some others, on the affirmative side of this question, and also advert to those on the negative; and finally, we will attempt to explain and harmonize the difference apparently existing between the contending parties.

The first disease to which we shall direct attention is—*Dysmenorrhœa*.

Dr. Bennett divides this affection into Constitutional, Accidental, and Inflammatory Dysmenorrhœa. The first form he considers as “evidently functional, the result of the distension produced by over-congestion, or of a peculiar susceptibility of the uterine innervation.” And this, he says, “can scarcely be considered a morbid condition, although verging on disease.” He informs us that the distinguishing characteristic of this form is its presence during the menstrual function, and the absence of all morbid symptoms during the intervals. Should the symptoms become persistent, he looks upon it as “a suspicious circumstance, as indicating the possible, or even probable existence of some inflammatory condition of the cervix uteri, or of some morbid ovarian condition.” The accidental variety is regarded as the result of transient or temporary causes, and, like the first division, not permanent. It will thus be seen, from this brief analysis, that this distinguished writer really recognizes but one morbid condition as the principal and almost

exclusive cause of dysmenorrhœa, and that is, *inflammation or organic disease of the uterus*.* Under the head of inflammatory dysmenorrhœa, he says: "When menstruation, naturally easy, becomes permanently painful; or when, naturally but slightly painful, it becomes extremely so, we are warranted in looking for a local disease. Such a change *does not take place without a cause*, and that cause is, generally speaking, inflammation of the cervix or body of the uterus; dysmenorrhœa being one of the most prominent and most ordinary symptoms of that disease." Dr. Bennett, we think, very properly, embraces under this head, the pseudo-membranous variety of dysmenorrhœa. The views of our author on this disease, and other points of uterine pathology, are so well known, that we consider it useless to multiply quotations on this almost inexhaustible subject; we will therefore refer those who wish to consult him further, to Ranking's Abstract, No. 15, 1852, p. 151. Before dismissing the pathology of dysmenorrhœa, it may be proper to add that we are not ignorant of the fact, that Dr. Bennett has been charged with exclusiveness and ultraism, even by those who are willing to admit the truth of his positions, in the main; and we confess, candidly, that we belong to that class—still, we are firmly convinced at the same time, that the pathology and treatment of uterine affections advocated by him is founded on the immutable basis of *truth*; and, consequently, that his doctrines *must* and *will* prevail, with such modifications as future and more dispassionate investigations may suggest.

The next subject which will engage our attention, for a short time, is, *the Pathology of Menorrhagia*, as enunciated by Dr. Bennett. This disorder (op. cit., p. 158) is divided by him into—1st. Accidental Menorrhagia; 2nd. Inflammatory; 3rd. Menorrhagia from Ovaritis; 4th. Menorrhagia at the dawn and close of Menstruation; 5th. Menorrhagia during Pregnancy; 6th. Menorrhagia after Parturition.

To the first, he applies the same mode of reasoning that he does to the accidental variety of dysmenorrhœa, viz: that it is

* Of course physical dysmenorrhœa, arising from contraction of the os internum, is admitted as an exception; but even this is declared to be a not unfrequent complication of inflammation, &c.

transient, and generally passes off with the cause that produced it, without treatment. The third he considers very rare. The fourth, like the first, he says, is seldom permanent, "in the absence of tumors or malignant disease, unless there be inflammatory ulceration of the cervix." He admits, however, that the hemorrhage will persist, in some few cases, even after "the removal of the inflammatory and ulcerative disease of the cervix, which had probably, in the first instance, given rise to it." The fifth variety he regards as a hemorrhage, produced by "inflammatory ulceration of the cervix," when "it is not merely temporary, and not proceeding from separation of the ovum."

The menorrhagia after parturition, (6th,) he says, "is nearly always complicated with, and occasioned by, inflammatory ulceration of the neck of the uterus, with or without disease of the body of the uterus." It should be remembered, that this is intended to apply only to those cases of "continued and obstinate hemorrhage" which sometimes continue for months after delivery. It appears, then, from the evidence of Dr. Bennett, that the vast majority of uterine hemorrhages belong to the second, or inflammatory division; while he at the same time admits that the sanguineous discharge does not always cease with the subduction of the inflammation, or the healing of the ulcer that gave rise to it.

As we do not expect to treat of amenorrhœa separately, we would here mention that Dr. Bennett regards "the development of inflammatory disease in the neck or body of the uterus, or in the ovaries, and of cystic and scrofulous tumors in the ovaries, as one of the most frequent causes of amenorrhœa, in those in whom the function has once been fairly established; and especially of partial amenorrhœa."

Having now very briefly adverted to the "organic pathology" of dysmenorrhœa, menorrhagia and amenorrhœa, as promulgated by one of its most distinguished and able champions, we proceed to the last division of our subject—*Leucorrhœa*: a disease of exceeding interest, and one that can command a stronger array of evidence in support of its organic origin than any other of its class, unless dysmenorrhœa be excepted.

Dr. E. J. Tilt, who has himself directed much attention to the subject of Uterine Pathology, and more especially to Leu-

orrhœa, says: "I scrupulously adhere to the truth in asserting, that in the conviction of the great majority of enlightened practitioners in France, Germany, America, or at home, chronic leucorrhœal discharges generally depend upon organic lesions of the os uteri and its vicinity."

Some of the distinguished physicians who have ably defended the "organic pathology" of the several uterine diseases which we have passed in review, but more particularly of leucorrhœa, have already been mentioned: the views of others, equally entitled to our confidence, will now be adduced.

Dr. C. D. Meigs, in a late work "on Acute and Chronic Diseases of the Neck of the Uterus," uses the following language:—"One of the most common of sexual disorders is leucorrhœa. Most women suffer from this affection at some period of their lives. In general it is not profuse and ceases spontaneously. When the discharge consists only of vaginal products it is of little consequence. It is hurtful only when it comes from the canal of the cervix." In another place, he says: "The excretion from the follicles and glands of the canal of the neck is always gluey or albuminous, and resembles fresh white of eggs; and when the patient, in describing the disorder, informs us that she discovers a slimy mucus, and especially if it appears at intervals of once a day, or oftener, we may take it for granted that she labors under inflammation of the neck of the womb." (Med. Examiner, July, 1854, p. 419.) We may take this occasion to add, that Sir C. M. Clark made a similar observation, long since; but being denied the aid of the speculum, he may have confounded the vaginal and uterine discharges.

Dr. E. Harris, of New-York, in "A comparison of the Statements and Facts advanced by the leading Uterine Pathologists on the Nature and Source of Leucorrhœal Discharges," while he admits, to some extent, the doctrines of the reflex nervous, or constitutional pathology, thus expresses himself:—"But there are physiological alterations, and lesions of structure that are found very constantly in connection with leucorrhœa. 1st. Engorgement of the uterus or its cervix. 2d. Congestion and inflammation of the utero-vaginal mucous membrane. 3d. Excoriation and ulceration of the cervix uteri. 4th. A peculiar

abnormity of the glandular structures of the canal of the cervix, probably depending upon other and more general pathological conditions of the uterine organs, or of the whole body." We have been thus particular in giving the words of this writer, because it is our design to recur to them again when we come to notice the negative side of this question, and attempt to "harmonize the apparent differences" existing between the opposing parties. But, before doing this, let us advert to the views of those who belong to the nervous or constitutional school of uterine pathologists.

Dysmenorrhœa is divided, by Colombat, into idiopathic and symptomatic: of the former, he says, the causes are but little known; and he does not attempt to give its pathology. With regard to the latter variety, he informs us that it "is much more common than idiopathic dysmenorrhœa;" and that its most frequent cause is engorgement of the neck and body of the uterus.

Dr. Churchill, who may be regarded as the representative of the constitutional school, it is well known, treats of this disease under three heads:—1st. Neuralgic dysmenorrhœa. 2d. Congestive or inflammatory. 3d. Mechanical. The first form, he says, "may last from twenty-four hours to four, or five days, after which the patient (unless afflicted with headache) speedily recovers," &c. He considers it most frequently of a simple neuralgic character, but admits that this explanation will not do for "those cases where the membrane is expelled." It will thus be seen that Dr. Churchill confirms the statement made by Dr. Bennett, in reference to what he terms "constitutional dysmenorrhœa," which answers to Dr. Churchill's "neuralgic" form, viz., that the morbid symptoms exist only during the menstrual function. And this we believe to be the true condition of things in simple neuralgic or constitutional dysmenorrhœa: So long as it retains this simple form the general health is not impaired, unless there be some other co-existent disease; but this periodic nervous excitement, combined with the hyperæmic congestion of the uterine vessels, which is a concomitant even of physiological menstruation, constitutes a strong predisposition to inflammation or other organic affection. And should this periodic excitation and congestion become habitual, per-

manent, organic, uterine disease, with grave and complicated symptomatic derangement of the general health, is the result. And this conclusion is formed, not only on the concurrent testimony of the distinguished writers to whom we have referred, but it is in strict accordance with the teachings of our own experience; for we can truly say, that we have never seen a case of continued, obstinate and intractable dysmenorrhœa, where an "examination" did not reveal some organic lesion of the uterus. And we may add, with equal truth, that we have never given *permanent* relief in a *single case* of this disease, treated on the plan prescribed by those who found their therapeutics on the nervous, rheumatic, or constitutional pathology; and this is doubtless the experience of most practitioners. When it is remembered, then, that this pathology is only suppositive, speculative, and incapable of positive demonstration, while the practice inculcated by its advocates, has been weighed in the balances of experience, "and found wanting," we think it will be conceded that such an unsatisfactory theory should be but little regarded, if not entirely discarded, even in the absence of the "organic pathology," with its "cloud of witnesses"—its solid, safe and sure anatomico-physical basis, and its consequent capability of mathematical demonstration. This being admitted, then, we would suggest that neuralgic, constitutional and rheumatic dysmenorrhœa, (all of which are different names for the same condition,) be stricken from our nosology; that these terms be no longer coupled with dysmenorrhœa; and that the *transient* pains to which many females are subject at the catamenial period, be designated as utero-menstrual-neuralgia. By adopting this name, we would at once convey an idea of the nature, seat, and exciting cause of the disorder to which it should be applied, while it would tend strongly to prevent many grave errors of practice which, no doubt, spring as often from an unfortunate and incorrect nomenclature, as from a false pathology. We would then have but one kind of dysmenorrhœa—the organic, with its sub-divisions; for we would exclude (though it might be embraced under this head) physical or mechanical dysmenorrhœa from the division, and define it in accordance with the well-established physical condition of the cervix, or os internum, which causes the *symptom* of dysmenorrhœa.

In accordance with the programme of our subject, we should next present the teachings of the Constitutional school on Menorrhagia; but for fear of protracting this article too much, we will omit this, and return again to the last disease, in our order of arrangement—*Leucorrhœa*.

It is well known that all the older, and many modern writers have failed to distinguish vaginal from uterine leucorrhœa; while Drs. Churchill, Hamilton, and some few others, among the English, and almost all of the French writers have insisted on the distinction in the symptoms, pathology, and treatment of the two affections. It is equally well known, also, that most authors consider the leucorrhœal discharge as the result of general debility, accompanied with relaxation of the uterine vessels, as a kind of passive exudation or white hemorrhage from the uterine and vaginal capillaries. Now, while this may be true in some cases, we concur fully in the pathology of uterine leucorrhœa, as expressed by Dr. Churchill, who is, by the way, a very good authority, as he may be considered as belonging to the constitutional school. He uses the following words: "That the general system may be in such a state (debility) is very probable, but it by no means follows that the individual organs are so. On the contrary, we know that in many cases of constitutional weakness, the cause must be sought in the inflammatory condition of certain organs. In the present instance this appears to be the case; for if we consider the local distress, the increased secretion, the course of the disease, and the remedies which are most successful, we can have but little hesitation in attributing all to the effects of inflammatory action, generally sub-acute or chronic, of the mucous membrane lining the uterus." It may not be amiss to add, in this place, that this author takes a similar view of vaginal leucorrhœa. (*Diseases of Females*, pp. 68 and 147.)

Having now succeeded, as we hope, in establishing the organic or local origin of many, or most cases of amenorrhœa and menorrhagia, and more particularly of dysmenorrhœa and leucorrhœa, it only remains now for us to conclude the pathologic branch of our subject, by a notice of the objections to the views advocated in this article, and by an attempt to reconcile the contradictory opinions expressed by the opponents and friends of the "organic pathology."

Now, it seems that Dr. Bennett, and the other English and French pathologists referred to in the beginning of this article, have insisted on the frequency of ulceration as a cause of leucorrhœa and dysmenorrhœa, (the diseases to which we shall confine our attention); while Drs. Lee, Ashwell and Tyler Smith have denied the correctness of the statements made by the former writers, and pronounced ulceration of the cervix uteri to be a comparatively rare disease; having found, as the result of their experience, "only about one case of ulceration in fifty of uterine disease." Here, then, is a direct disagreement, between writers of equal authority, each professing to give *facts* founded on personal experience and observation. But we think that these differences can be reconciled by a proper understanding of the lesions to which the term ulceration has been applied. If a *cavity* or *excavation* be a *sine qua non* of ulceration, then, indeed, in all probability, ulceration of the uterus is not a very common affection. But we will be able to show that there are several other uterine conditions to which the term ulceration has no doubt been applied, by the organic party, and moreover, that the frequency of the organic changes alluded to, has been admitted, by Dr. Smith and others of the constitutional party. The pathological conditions of the uterus in leucorrhœa, as enumerated by Dr. Harris, have already been given; and it has been seen that he embraces in his 3rd division *excoriation* and ulceration of the cervix uteri. Now, there can be no doubt that the Bennett party have considered many of these cases of "excoriation," abrasion, &c., as cases of ulceration; for we have the authority of Dr. Harris for saying that the structural alterations, denominated by them as ulcerations and granulations, "do not differ from abrasion, erosions, aphthæ, morbid vascularity, granulations of the conjunctiva," &c. We may add, that Dr. Harris objects, perhaps with propriety, to calling simple epithelial abrasion ulceration; still he admits the great frequency of this organic change. (Ranking, No. 18, pp. 195-96.) Dr. Smith, while he expresses the opinion that the glandular portion of the cervix uteri is the chief source of the discharge in leucorrhœa—and that this discharge is a secretion—suggests the following divisions, founded on microscopic and minute anatomic investigations: "1st. The mucous variety, secreted

by the follicular canal of the cervix. 2d. The epithelial variety, in which the discharge was vaginal. With respect to the so-called ulcerations of the os and cervix, two kinds of morbid change would be observed—1st, epithelial abrasion, by far the most common, in which the epithelium alone was deficient; 2d, villous abrasion, erosion, or ulceration, in which the villi are affected by superficial ulceration.” It is hardly necessary for us to say that we do not agree with Dr. Smith, as to the follicular secretion of the canal of the cervix, as a frequent cause of leucorrhœa; for it strikes us very forcibly that this secretion would never transcend its normal limits, unless some irritation or other morbid condition of the mucous membrane or the glandular structure, existed as a cause of the excessive discharge; and of course it would be proper in that case to regard the cause as the *ipse morbus*, and to treat it accordingly.

We have now seen that Dr. Smith and Dr. Harris, (and others might be adduced) both admit the frequency of various lesions of the genito-mucous membrane in leucorrhœa; and moreover, that these lesions have been denominated, by Dr. Bennett and others who belong to his party, ulcerations; the contest having originated then only in a misunderstanding as to the proper definition of the term ulceration; while all parties agree as to the great frequency of structural alterations of the genital organs, as a cause of dysmenorrhœa and leucorrhœa, the controversy should here end. But whether the latter continue or not; whether ulceration be defined or not; whether the frequent existence of excavated ulcer of the cervix uteri, be proven or not; still the “organic pathology” would stand unshaken, when we have the evidence of daily experience, together with the testimony of the most distinguished observers, to prove to a demonstration, that a vast majority of the cases of leucorrhœa and dysmenorrhœa, (to say nothing of amenorrhœa and menorrhagia) owe their existence to some of the various local organic conditions to which allusion has been made.

As we will be compelled, by the length of this article, to postpone our remarks on the treatment of the diseases to which we have directed attention; we will briefly recapitulate the evidence adduced in support of the “organic pathology,” and we will then conclude by some deductions which, we think, may be

legitimately predicated upon this evidence. We have shown, then, 1st—That Dr. Bennett recognizes really but one morbid condition, as the principal, and almost exclusive cause of dysmenorrhœa—viz: inflammation, or organic disease of the uterus. 2d—That the same writer considers the vast majority of uterine hemorrhages as the result of inflammation or organic disease. 3rd—That he attributes a large class of cases of amenorrhœa, to similar pathological conditions. 4th—That leucorrhœa is declared to be a symptom or effect of organic disease, in most cases, by Drs. Tilt, Meigs and Harris; while Dr. Tilt appeals confidently to the most “distinguished physicians” at home and abroad, to sustain his position. 5th—That the above opinions are confirmed by Churchill and Colombat. 6th—And by our own observation. 7th.—That Drs. Lee, Ashwell and Tyler Smith, while they deny the frequency of ulceration, still admit that there are many other organic alterations which are acknowledged to be common causes of leucorrhœa. 8th—That many of these organic changes have been denominated ulcerations by Dr. Bennett and his partisans. And lastly—That the “organic pathology” is thus established: 1st, by daily observation; and 2d, by the concurrent testimony of the most distinguished writers of the two contending parties into which the medical world is divided.

DEDUCTIONS.—1st. That leucorrhœa and dysmenorrhœa are very common *symptoms* of local organic uterine affections; and that the constitutional complications are generally resultant—*symptoms* alike with the leucorrhœa and dysmenorrhœa—and but seldom causative. But, 2d. Whether the constitutional affections be resultant or causative, the local treatment is of essential, if not of primary importance, and should never be neglected. 3rd. That constitutional symptoms should not be disregarded in our therapeutic means, for whether they be the cause or the effect of the uterine affection, they may and will react injuriously upon it. 4th. That many cases of amenorrhœa and menorrhagia are produced by ulceration, congestion, tumors, and other organic uterine affections. 5th. That the principles already announced, should govern us in the treatment of such cases.*

* We might with great propriety make a 6th deduction, viz., that our nomenclature of uterine diseases should be changed; for it is as vague and uncertain as the treatment connected with it.

And lastly, that "dioptric instrumental examinations" are *all important* and *absolutely indispensable* in the diagnosis and treatment of a great number of cases of amenorrhœa, menorrhagia, dysmenorrhœa, and leucorrhœa.

ARTICLE XXXI.

Additional Remarks upon Vertex Presentations. By C. C. HOWARD, M. D., of Lowndesboro,' Alabama.

Professor L. A. DUGAS :

Dear Sir—In the July No. of the Southern Medical and Surgical Journal, are contained some remarks on the cause of the great frequency of the 1st position, Vertex Presentation of Baudelocque. Allow me, now, to offer a few remarks on the other positions of the Vertex Presentation, somewhat in continuation of the article referred to. In that article it is intimated, if not clearly stated, that there is an evident tendency for the fœtus to bear the relation to the mother, of the 3d position; but counteracting agencies make it usually the 1st. It is also admitted, that the peculiarities of the *pelvis*, have much to do in determining the frequency of the 1st, 2d, 4th and 3rd positions, as compared with the 3rd and 6th; but little as compared with each other. The explanation, then, of the cause of the greater frequency of the 2d position, as compared with the 4th and 5th, must involve the facts* mentioned as determining the 1st position, except the peculiarity of the right hypochondriac region. The resistance offered by the liver, to the extension of the uterine globe in that direction, is such, I think as usually to throw the body of the fœtus around to the left side; but the variable size of that viscus, the variable length of the abdominal cavity, the relaxations of the abdominal muscles, as well as the lying much on the right side during gestations, are facts sufficiently well known, for us to understand that *all* the causes of the 1st position may not always be brought to bear on the fœtus, and consequently we often have the 2d. Indeed, when the *peculiar means* by which the child is turned to the *left* side are wanting, I cannot see why we

* See July No. Southern Medical and Surgical Journal.

should not have this 2d position as readily and frequently as the 1st. If the fœtus be relatively small, or the amniotic fluid relatively great; in a word, if the cavity containing the fœtus, be sufficiently commodious, to allow it to be quiet, with the back somewhat to the maternal back, and yet the liver brought to flatten the right side of the uterine globe, then, and then only, it would be probable that the 4th position might occur. I am very far from thinking that this position is owing to an impacted rectum, &c., as some suppose. But by accident, the child may lie on the right side rather than the left; and then, if the conditions just stated exist, I should expect the 4th position. On the other hand, if the circumstances favorable to the 2d position exist, and still the relative size of the fœtus and cavity in which it is contained be such as to give it accommodation in the 5th position, I see no reason, other than the force of gravity, why we might not have this 5th position as readily as the 2d; but under ordinary circumstances, the force of gravity would exert a very *controlling* influence, and therefore, though absolutely, the 5th position might not be unfrequent, yet, as compared with the 1st or 2d, it ought to be, and I think, is, most decidedly so.

As to the 3d and 6th positions of the vertex presentation, I have already indicated this opinion, viz., that the peculiarities of the pelvis would make them very unusual; and as to the latter, i. e., the 6th, I have never seen a pregnant woman whom I thought in a condition for it, by any *possibility*.

I am quite aware, that in attempting to account for the greater frequency of the 2d position, as compared with the 4th, I am undertaking to account for a fact most distinctly denied by gentlemen who occupy a position in the profession to which I do not so much as dream of attaining; and surely, I should not have the temerity to express an opinion, if only supported by *my* experience or the reasonableness of any theory. But how does this question stand? Let us see, In Baudelocque's practice, in 10322 labors the occiput was to the *right* and *anterior* portion of the pelvis 1754 times, and to the *right and posterior* portion only 25 times. In Madame Boivin's practice, in 19584 births, vertex presentation, there were of the 2d position 3682, and of the 4th only 109. In Madame Lacha-

pelle's practice, of 20698 vertex presentations, there were of the 2d position 4659 and of the 4th only 164.

Although Dr. Dewees says, "the 4th position is by no means unfrequent," I do not understand at all, that he regards it as occurring near so frequently as the 2d.

Dr. Bedford, in a note to his translation of Chailly, page 183-4, insists on the correctness of Baudelocque's observations, and wishes especially, to direct the attention of the student to the different view of the subject, which he calls an error.

But, here we have something of the other side of the question:—M. Nægelè, who, I believe, was the first to contend for the greater frequency of the 4th position as compared with the 2d, in 100 presentations of the Vertex, found the occiput 70 times to the left, and in front, and 30 times posteriorly, and to the right. In another series of thirty six labors, there were twenty two of the 1st, and eleven of the 4th position.

M. P. Dubois, in 1913 presentations of the vertex, found that in 491 the occiput corresponded with the right sacro-iliac symphysis, and in 55 only was the occiput turned forward, behind the right cotyloid cavity.

J. F. Moreau (page 149) says, "we have for a long time been of the opinion of M. Baudelocque; but enlightened by experience, we now agree with M. Nægelè; we think that Baudelocque has mistaken the exception for the rule, &c."

Murphy, in his lectures on Parturition, referring to this subject, says: "Being anxious to determine this question, I availed myself of the opportunities afforded me in the Dublin Lying-in Hospital, of putting it to the test, and found that in nearly an equal number of cases the head entered the brim in the third position as in the second, that of those which descended in the third, the majority passed without any difficulty into the second, and were so expelled, while a very few remained in their original position. The whole evidence, establishes Nægelè's accuracy of description, and it may be admitted that, as a general rule, the head rotates from the third (that is our 4th,) into the second position, when it is passing through the pelvis." Here is *his* table of seventy-four cases: First position, 43; fourth (our 5th,) into first, 3; second, 11; third (our 4th) into second, 9; third, 2, &c.

Says Professor Meigs,* "In a conversation I had with this venerable and most honored professor at Heidelberg, in 1845, (referring to M. Nægèlè,) he gave me convincing proof of the correctness of his opinions of this circumstance. Indeed, I kept a register of presentations a few years since, upon learning through a publication of Dr. N's Mechanism of Labor, made by Dr. Edward Rigby, now of London, that the common view as to the greater frequency of the vertex right position, was erroneous. I am fully convinced, by my registry, and by the course of my clinical experience ever since, that Prof. N is quite correct in his statements, and I venture to assure the medical student, that while he shall surely meet with vertex left positions more frequently than any others, he shall as surely find the forehead left positions next in point of frequency."

"Prof. Simpson agrees with Dr. N's views."

Now, what under the sun does all this mean?—this astonishing exemplification of the adage, that "doctors disagree"?—The forceps have been applied again and again—special rules are given in relation to them—applied when the head is high up in the pelvis, and yet, until within a few years, we were taught that the head was *frequently* in a position, which indeed, we are now told, is *very unusual*.

As I have undertaken to account for the frequency of a circumstance which is represented as being very unfrequent, the discussion of this question unavoidably comes up; and if I only shew the awkward position in which it now stands, and induce others of more extended opportunities and riper judgement, to turn their attention more particularly to it, will it not be rendering valuable service to the profession?

I used to think, if we knew any thing about the subject of positions, it was those of the vertex presentation. If Baudelocque and his followers blundered so dreadfully, about the relative frequency of the 2d and 4th positions, how do we know that they are right about any of them? I thought they spoke from observation, and though my experience is very limited, I thought that, as to this question, it coincided with theirs—for the few cases I have had, I have tried to understand, and if I ever saw a 4th or 5th position, of the vertex presentation, I do

* Treatise on Obstetrics, p. 271.

not know it. Very certain it is, I never saw any case in which the *forehead passed under the pubal arch*. I have seen the shoulder presentation. The breach is said to occur only, in about two cases out of every hundred, and yet I have seen that presentation several times—and in passing, I may state, no less than four times in the same woman, viz., her tenth, eleventh, twelfth and thirteenth labors. And what is farther remarkable about it, so far as the lady knows, she had never previously, had such a presentation. Another fact, in this woman's experience, allow me to mention, viz., that after two of her confinements she had an "abdominal abscess" (in the anterior wall) either of which ran a very protracted course—the first, before I ever saw her, which was probably mistaken for disease of the left ovary; the second, after the first confinement in which I saw her. It occupied near six months in running its course, and was also mistaken for disease of the ovary; but that of the right side. Under the error in diagnosis, her first physician predicted a discontinuance of child-bearing; and now, as the other ovary was believed to be radically diseased, the prediction was confidently repeated. Long before the termination of the case however, it was evident, that the diagnosis was wrong—that the disease was one of Abscess, *confined* to the wall of the abdomen. The prognosis therefore was reversed, as to the liability to pregnancy, and its correctness, as already stated, has been demonstrated three times since.

To return: Under this state of the question, let us proceed to examine the observations of the 4th position advocates, and this we do with all possible respect; for no man *ought* to have a higher respect, for his predecessors, and the aged and experienced of his own day, than the writer. Far be it from me to breathe a breath, that would raise one gray lock upon the head of the time honored, or deepen or lengthen one single furrow on his brow. But farther research ought to be made; the errors of former observations ought to be corrected, or progress has ceased. And should we wait until we grow old before commencing, how little may we hope to accomplish!

The following objection, I think, ought to lead us to receive this new statement with some hesitancy, viz., a want of agreement in the result of observation, and this want of agreement

is very apparent. M. Nægelè, in 100 cases, had 30 fourth positions, and *not one second*. M. P. Dubois, in 1913 cases, had 461 of the 4th position, and 55 of the 2d: and Dr. Murphy found *nearly an equal number* of 4th and 2d positions in his series of 74 cases.

But let us notice the observations of some of these gentlemen farther. Now, I hold, that to be very far from right on a part of the positions, is to be so probably, on the whole. If we diagnosticate twenty 2d positions, and twenty 4th, and it turns out that all are 2d positions, in our diagnosis we are twenty wrong in each, therefore, in equal error on the whole. M. Nægelè disagrees with almost all modern observers, on the positions of the Vertex Presentation. I read in J. F. Moreau's work on Midwifery, page 149, subject—"Third Direct Position—Occipito-pubal." "The ancients, and Levret among the moderns, consider this position as the most natural. Baudelocque, on the contrary, says, that it is very rare. He only observed it twice in 10329 labors; Madame Boivin 6 times in 20517, and Madame Lachapelle not once in more than 30000. Nevertheless, Drs. Dewees and Radford have reported authentic cases of it. *M. Nægelè even goes so far as to say, that it occurs originally in all the anterior occipito-iliac positions*, and that the latter are merely a secondary transformation of it, which is (not?) recognized only because we make our examinations at too advanced a period." How does this observation coincide with the general experience of the profession? and yet, is it not as probable as that stated by this observer in relation to the 4th position?

But again: The reason that the fact is not recognised is "we make our examination at too advanced a period." I cannot say at what period M. Nægelè makes his examinations, for I have never seen any work of his; but we have several pages in Dr. Murphy's Lectures on Parturition, in relation to "making a Vaginal Examination." On page 94, he says:—"The only position that should be ascertained before the waters are discharged, is the shoulder presentation." On page 98, he says:—"The head if presenting, may also be felt; but the position *cannot* be determined until the dilatation is more increased, and the *head fully in the brim*. And on page 100, we read:—"In ordinary

cases of labor, such as we are now speaking of, the membranes seldom give way until the second stage has made some progress, and often remain entire until the head of the child is almost expelled." The presumption is that the Doctor observes the rule laid down in his book, and if so, tell me who does not *attempt*, at least, to note as much, and as soon, in the management of cases, as he advises? Shall we then admit, that Baudelocque and his followers have failed to come to a correct conclusion, because they have made their examinations at too advanced a period? By no means.

Professor Meigs also advises a similar course. On page 259, he says:—"For the most part, we only ascertain, in such an examination, the *presentation*, and being *satisfied with that*, we wait until a *great dilatation*, or the *discharge of the waters allow* us to discover the *position*." Farther on he says:—"As soon as practicable *after* the escape of the liquor amnii, the touching should be repeated, and *now* there is little difficulty in determining the position of the head, though it may often be ascertained through the unruptured membranes." I again ask, is it possible, that Baudelocque, who was deeply interested in the question of positions especially, failed to attain a correct conclusion, because *his* examinations were made at too advanced a period?

But again: Why should one position be so constantly converted into another, as M. Nægèlè seems to think? What reason is there, that the very positions which are the most usual eventually, and the safest, should not be original? Nearly all children presenting the Vertex, are born in the 1st or 2d position; and yet according to this obstetrician, those are not the original positions. Let us examine farther, the 4th converted into the 2d. When the occiput is to the right sacro-iliac symphysis, the body of the fœtus doubtless, corresponds with that position. Now in the 1st, as well as some other positions, one important mutation is rotation of the head, *at the expense of the neck*. This is true, I think, in the 4th position also, and if so, when the occiput is carried from the sacro-iliac junction, to the pubes, the rotation must be very great *at the expense of the neck*, or else the body of the child changes its relations to the body of the mother, which, in the 1st position, Professor Dewees, as

well perhaps as some others, is particular to tell us it does not do. If this is not done in the 1st position, why should it be done in the 4th? I cannot see a reason. And if the rotation is at the expense of the neck, who would undertake to say that "*cæteris paribus*, the 4th position, is as safe for the mother and the child as the 1st." But, it is said, the relation of the body of the *fœtus* to the mother *is changed*. * How is that? Is there any peculiar action in the uterus changing it? I cannot think of any. I suppose it must be, that the direction given by the modifications of the pelvis, irresistably carry the occiput under the pubal arch, and the body is twisted forcibly around. If that be so, can the 4th position be "*cæteris paribus* as safe for the mother and the child as the 1st?" But, even suppose there is none of this twisting, and by some peculiar action of the uterus the body of the child is changed in its relations to the mother. When the occiput is passing under the pubal arch, the shoulders, I suppose are entering the superior strait; now do they (the shoulders) follow the head in their relation to the pelvis? or do they pass the superior strait transversely? or are they carried round to the 2d position? If the first, then the rotation must be at the expense of the neck. If the second, then the greater diameter of the shoulders, would pass a smaller diameter of the pelvis, than the oblique; neither of which can be safe or easy;—or lastly, if the third, why would not the force which carries the body to the 2d position in the latter stage of labor, carry the head there in the commencement?

Again:—In the former article of July, I attempted to show, that under the uterine and abdominal contractions, if the back of the *fœtus* was to the back of the mother, the tendency of the latter contractions was to throw the child around to the 1st or 2nd positions; or else extend it. Trusting that will be granted, I now wish to show that the 4th and 5th positions, though they will, perhaps in most cases, be converted into the 2d or 1st, if the head *enters* the superior strait, in the *Vertex Presentation*, yet they are extremely liable to be converted into face or shoulder presentations. If the contractions of the uterus are not sufficiently great to effect the *fœtal flexion*; but the abdominal muscles on the contrary acting with more energy extend the

* Most of the *Italics* are mine.

child,* since the direction of the expulsive force is not exactly in the direction of the pelvic cavity; the forehead now impinging the anterior pelvic border, is it not clear, that instead of flexion of the head on the breast, the extension may increase, and thus the face continue to roll over, until it shall become the presenting part? The facts just mentioned, viz., that the expulsive force is not precisely in the direction of the pelvic cavity, and the head impinging the anterior border of that cavity, have no little influence in the 1st or 2d position of effecting the flexion; but here, in the 4th or 5th position, the relation of things is just reversed, and the very occurrences which aid much in flexion, now make their entire contribution to extension, and to bringing the face to present rather than the vertex. I entirely agree with Dr. Meigs, that the face is but an accident of the vertex presentation; and though I never saw a face presentation, I know of no more probable way in which it could occur.

Reverse the forces spoken of, viz., the contractions of the uterus and abdominal muscles—let the first be great, producing the utmost flexion of the fœtus; now, instead of the head passing into the superior strait in the vertex presentation, is it not more than possible, that the occiput impinging the anterior border of the pelvic cavity, will glance, and instead of the head entering at all, will retire to make way for the shoulder, or whatever part below the shoulders may chance to be brought down?

Had I time, and did I not fear extending this article beyond a readable length, much more might and would be said; but, permit me to recapitulate and I close.

1st. Seeing no reason to believe, that Baudelocque and his followers have examined this matter of the frequency of the 2d position, as compared with the 4th, with less care than M. Nægelè and those who receive his opinion;

2d. The opinion not according with my own observation; and,

3d. Being wholly out of keeping with what I regard as the most plausible theory on the subject of the positions of the vertex presentation; I prefer to be in the ranks in which this

* It being at an angle of near 30°

paper shews me; but avowing at the same time, a sincere desire to know the right, and an unqualified willingness to embrace it.

On Irritability of the Bladder. By HENRY THOMPSON, Esq., F.R.C.S., M.B., Honorary Surgeon to the Marylebone Infirmary.

(Continued from August No., page 479.)

PART III.

There is a species of rheumatic affection, so-called, which appears as one of the latter consequences of gonorrhœa, among those pseudo-secondary symptoms, if I may use the term, which are sometimes observed to follow the primary complaint. Here the patient complains of undue frequency of micturition, but there are no concomitant symptoms of inflammation, or of simple catarrh. There is no narrowing of the urethra. Inquiry may elicit the fact that there has been some slight eruption of the skin, or a swelling of the knee, or other joint, or wandering pains may have been complained of; conjoined to these, a gradual depreciation of the general health will commonly have been observed; the skin is often dry and harsh, and the digestive functions are impaired. Under such circumstances, the patient will often derive great benefit from a persevering use of the iodide of potassium, and active tonics, such as the cinchona, with small doses of Plummer's pill. Sometimes, however, more benefit seems to result from small doses of colchicum in the form of tincture, or in that of the acetic extract, with an equal quantity of blue pill added occasionally; sometimes from guaiacum, which is advantageously given in powder with calcined magnesia—ten or twelve grains of each, well mixed, may thus be taken in milk, or water, once or twice in the day. Warm baths, especially when of salt water, and the vapour bath also, are often very valuable adjuncts to other treatment. Added to these, the removal to a warm and dry locality, where this has not previously been enjoyed, may confirm or complete the cure of an obstinate case. In most instances, however, it is necessary to persevere continuously for some time in the course of the treatment which is decided upon, whatever it may be, and not hastily or unnecessarily to change it for another.

Frequent micturition is sometimes associated with an affection of the prostate, or more properly speaking, of the urethra as it passes through that gland, when the symptom occurs in youth, or at an early adult age. Thus, after an habitual inor-

dinate indulgence of venereal appetites, sometimes after repeated attacks of gonorrhœa, or quite as commonly after one attack only in certain constitutions which manifest undue excitability of the urinary apparatus, and in which catarrhal discharges generally are very obstinate and hard to cure, the patient complains of vesical irritability, attended or not with some gleet discharge. On passing a middle-sized catheter, no organic narrowing is discovered, but there is extreme sensibility of the canal, after the instrument has traversed some five or six inches of the anterior part. Acute cutting pain is then complained of as it is carried onwards to the bladder. The catheter may be tightly grasped, and is not to be removed without some pain. Perhaps it is not possible to say what is the exact condition of the urethra here; probably there is some vascular congestion, or subacute inflammatory action existing in the mucous membrane, analogous to that met with elsewhere. This, however, we know, that in four cases out of five, the passing of a catheter, repeated at two or three days' intervals, for a short time, almost entirely removes the hypersensibility. The muscular constituents of the canal are perhaps stimulated to contract by the presence of the foreign body; the enlarged or relaxed capillaries thus emptied of their contents, gradually return to their normal size, and the congestion ceases to exist.

Thus it happens that on the first or second time of using the instrument, some slight bleeding may occur, which appears to have a beneficial effect rather than otherwise, and it rarely takes place afterwards. The actual presence of the pathological state described, is, in most instances, a matter of conjecture only, it must be confessed, but there is a strong probability that it may not unfrequently be affirmed. Now sometimes it seems to happen that this affection, when much neglected, or if marked by more than usual severity, may implicate the neck of the bladder also to a greater or less extent, and set up considerable irritability of this organ. Such a condition, as might naturally be expected, is aggravated by the stimulating diuretics frequently employed, which contain some volatile or acrid principle, such as buchu, copaiba, &c. I have met with several cases notably illustrating these remarks. In this complication, also, if there be no purulent discharge with the urine, which is sometimes the case, I have found the benefit of passing instruments into the bladder, beginning, say with No. 7 or 8, and passing on to 10, 11, or 12. But if these fail, or if there is some little purulent discharge, an application of the nitrate of silver to the prostatic portion of the urethra and neck of the bladder is exceedingly useful as a curative means. Sometimes

the whole bladder is advantageously injected with solutions of the nitrate; it is, I believe, however, generally sufficient to cauterize the parts indicated. Nevertheless, there are conditions of the vesical mucous membrane in which such injection is highly beneficial. When the neck of the bladder has thus become affected, the urine may be decidedly albuminous, and yet no serious renal disease may co-exist. It would then seem to be a result of irritation, secondary to, and depending upon, the condition of the bladder; for on remedying this, the albumen disappears. In such a case, the absence of the constitutional signs of organic disease of the kidney, and the non-appearance of diseased epithelium or casts in the urine, will lead the observer to watch closely for the source of the albuminous product, and perhaps to connect it with some functional, and not with any organic derangement.

We meet with vesical irritability, accompanied by more or less of mucus in the urine, or muco-purulent deposit, in which no evidence of inflammatory action being present, we cannot feel justified in regarding it as a condition of cystitis, although it is often, but not necessarily always a sequel of it. It seems to be due rather to an atonic or relaxed condition of the mucus membrane, in which the phenomena described occur, and in which much distress from frequent calls to pass urine is experienced, but which will not be combated successfully by any antiphlogistic treatment. It is for this class of cases especially that stimulating injections for the bladder are so useful. Among them may be mentioned the nitrate of silver, in the proportion of half a grain to two grains to the ounce of water. The strength, however, may be greatly increased, even to ten or fifteen grains for some cases. Another useful formula is half a grain to a grain of the acetate of lead, with two grains of the extract of opium, to the ounce of water. The nitric acid is particularly indicated when the urine is charged with the earthy phosphates, and may be added to water in the proportion of one or two minims to the fluid ounce. Creosote and copaiba have both been employed by continental surgeons in these circumstances; the former in the proportion of one minim, the latter in that of thirty to sixty minims, to the ounce of fluid; but I have no experience of the effect of these. Plain warm water is often of great service in most cases where much mucus is present, and it may then be advantageously injected once or twice a day. The employment of a continuous stream by means of the double current catheter, with a free opening for the transit of mucus, is best adapted for the purpose. When there is much pain, as well as irritability, the extract of opium may be added to the water; but, generally speaking, a

sedative effect is much more efficiently obtained by the use of a suppository. When the contents of the bladder are extremely offensive, a weak solution of chloride of soda is sometimes of considerable value as an injection. It may be repeated every day. The strength to be employed should range between six and ten minims to the ounce of tepid water. In the operation of injecting the bladder, instead of fixing the nozzle of the syringe directly upon the catheter itself, it conduces greatly to the comfort of the patient to connect the two by means of a pliable or elastic tube, so that no impetus be transferred to the sensitive organ from the hand employed in propelling the fluid. The vulcanized india-rubber bottle, fitted with pipes and valves, like those of the ordinary enema apparatus, is very preferable to the syringe for this purpose, because it can be worked by the operator with one hand only, leaving the other free to adjust the catheter or turn the stop-cock. With regard to internal remedies, the alkalies before alluded to, provided the urine is not already alkaline, as a general but not invariable rule, or the mineral acids if it be strongly so, combined with the infusions of diosma or buchu, or of the uva ursi, with full doses of hyoscyamus or of camphor, and sometimes with copaiba or chios turpentine, appear to be the most efficient in non-inflammatory conditions of the bladder. The tinctures of iron and hyoscyamus together, or of iron and hop, sometimes exercise marked benefit in weak and anæmiated subjects. From decoction of the pareira brava, in doses of the ordinary Pharmacopœia strength, and also when augmented greatly beyond that standard, I have been disappointed in obtaining the good results attributed to its use, and in cases which have been apparently adapted for it. We have the highest authority, however, for its value in some circumstances.

I may appropriately mention here a form of irritability, with sometimes mucous urine, of which I have had three examples. In these cases the patients had experienced a variety of treatment without benefit, until the simple proceeding about to be described was adopted, with complete success in two of them. The occasion was unquestionably an organic narrowing of the urethra close to the external meatus—that is, within half or three-quarters of an inch, but so slight in degree as not at first to be recognised as the cause. In the first case, No. 5 catheter, in the second and third No. 7, were passed with tolerable ease into the bladder, the only obstacle to larger sizes being the slight narrowing described. Having tried all ordinary means in vain,—having dilated the obstruction somewhat, but finding that the irritation so occasioned rather rendered the subsequent contraction, which was certain to take place in a

few days, if anything, rather more obstinate than before, I divided it in each case by carrying a director and tenotomy knife in its groove through the constricting part, and passing a No. 10 and 11 catheter afterwards. The operation is exceedingly simple, and was attended with the best results. In the two former cases, all the vesical symptoms rapidly disappeared; the latter still remains under treatment, the mucous membrane of the bladder having suffered, I fear, some change from chronic disease. The patient has, nevertheless, improved since the operation, which was performed a month ago. It is remarkable how exceedingly resilient these contractions are, how inefficient mere dilatation is to render their disappearance permanent, and how speedily the frequent micturition and supra pubic pains vanish after the simple act of division has been performed.

It might have been considered by some impossible that an obstruction so slight as those which have been described should occasion serious symptoms. I confess I should have thought so some time ago. Not, however, until after meeting with two of these cases, I became acquainted with Civiale's observations made some years ago in relation to this very subject. They are so pertinent that I may be permitted to quote them here, from the last edition of his work on "*Diseases of the Genito-Urinary Organs*," published in 1850, vol. ii., p. 34. He speaks of "the co-existence of very slight strictures of the urinary meatus with *neuralgia of the vesical neck*, which latter disappears immediately after the meatus has been divided." He continues, "I have seen many examples of it, and I own that I have not admitted without some hesitation the influence of a cause which appeared to me at first sight not to have any weight, yet I have had but to incise the urinary meatus, and to introduce some bougies, in order to hinder the little wound from immediately re-uniting, and I have seen all the symptoms disappear. In multiplying themselves, these facts have dissipated my doubts, and the result now presents itself so clearly that I am enabled to announce it as certain.

M. Civiale has written at great length upon "*Neuralgic Affections of the Neck of the Bladder*," by which phrase he appears to designate any condition in which the patient experiences abnormally frequent desires to micturate, attended with pain about the pubes and perinæum, but without throwing much light upon the exact pathology of the complaint so denominated. In respect of the treatment, however, his observations tend to show the value, in a certain proportion of cases, of passing bougies, and thus subduing the abnormal sensibility, as he calls it, of the vesical neck. Entertaining the

utmost consideration for any opinion advanced by that experienced observer, I am nevertheless compelled to believe that an undue sensibility of the prostatic urethra already alluded to, giving rise to all the symptoms which he describes, is a much more frequent affection, at least in this country, than an altered or abnormal innervation of the neck of the bladder. I have been frequently consulted for pains and uneasiness referred to the neck of the bladder, in which the passing of a catheter has shown that the point of extreme tenderness was situated distinctly anterior to the neck and most certainly in the prostatic part itself. I should not feel warranted in expressing an opinion on this subject, had I not possessed the opportunity of observing a very considerable number of such cases amongst patients who have applied for suspected organic stricture of the urethra, or for some other affections of the urinary organs, supposed, but often erroneously, by the sufferer to be present.

PART IV.

Irritability of the bladder is a symptom which frequently occurs in children and young people, and often proves the occasion of much annoyance and even distress when it persists, as it sometimes does, up to the age of puberty. The patient generally exhibits no sign of it during the day; but the act of micturition takes place involuntarily, and may be repeated during the hours of sleep, appearing to overcome the retentive power of the urinary apparatus when volition is suspended. Whether the natural retentive power is weakened, or whether the expulsive function of the urinary organs is unnaturally called into action, it may not always be possible to ascertain. While some cases exhibit more of the former character, the great majority probably depend chiefly upon causes of the latter kind. The sources of excitement which may thus act are extremely numerous and various in their nature and locality. Among them are the irritations occasioned by dentition, intestinal worms, and other foreign matters in the bowels, food of an improper kind, or taken shortly before going to bed, &c. Very commonly there is an abundance of uric acid deposit in the urine, which seems to act as the disturbing cause. The health is sometimes temporarily deranged, and requires only to be set right. The general tone of the body may be deficient, the muscular fibre being lax and debilitated, and an invigoration of the vital powers may be accompanied by a disappearance of the evil. The force of habit alone may sometimes perpetuate it when the originating cause has been removed. But these conditions appear not to include all the causes which occasionally give rise to the complaint in question. We look

in vain for these sources of excitement in some patients, and after employing empirically a long list of approved remedies, are still doomed to be disappointed. In the spring of last year I had an extremely obstinate case, in which the affection had existed from childhood to the age of fifteen years. The youth was brought to me from the country, where he had received treatment of various kinds, including medicines, blisters to the sacrum, &c. He was intended by his family to be articled to some profession of business, but was disqualified by this most disagreeable infirmity. Not being able to detect any cause in the condition of the urine, or in adjacent organs, I decided upon simply passing a catheter every other day for two or three weeks. As only a slight improvement followed this means, I then cauterized the neck of the bladder with a solution of one drachm of the nitrate of silver to the ounce, by means of an instrument which I designed some time ago for the purpose of enabling us to apply to the prostatic urethra and bladder solutions of various strengths in place of the solid caustic. During the subsequent four weeks there was no re-appearance of the incontinence. He then returned home, and six months afterwards I heard from him, stating that he was perfectly free from his annoyance, and had entered upon the business engagements for which he had been intended. I have had no other similar cases of sufficient obstinacy to warrant me in employing this remedy in the manner described. It is nevertheless a safe and efficient one, when the employment is indicated, if properly applied. I have used it between forty and fifty times for cases previously alluded to, and have never observed any ill effects to result.

I may now briefly glance at a different class of cases, comprised beneath the latter term of the last division of the table, viz., those in which irritability of the bladder is due to "certain derangements of the nervous system."

Anomalous affections partaking more of the character of unnatural retention of urine than of vesical irritability, although sometimes assuming the latter form, are met with among many of those remarkable phenomena which are presented in the female economy, and generally termed hysteria. It is not conceived to be within the scope of this paper to enter upon the consideration of these.

Irritability of the bladder in either sex, but especially in the male, may be the result of cerebral or spinal injuries of various kinds. Chronic organic diseases of the organs indicated also play their part in producing the same symptom. Thus, by those who have passed the meridian of life we are sometimes consulted respecting its appearance. Inquiry elicits the fact

that it has occurred in an almost imperceptible manner, and that of late it has attracted the patient's attention by becoming a source of inconvenience rather than of discomfort or pain. The urine presents no character to account for the occurrence, and there are no signs of obstruction to its flow. In short, no indications appear for any direct line of treatment; nevertheless, the evil increases, and almost disqualifies the individual for society, and for many of the ordinary engagements of life. At the same time, however, unmistakable signs of impaired nervous function are exhibited. Probably there will be some uncertainty in the gait; perhaps some inequality in the power of grasp by the hands. The organs of special sense may be impaired in some degree, apparently without the occurrence of any organic changes in their structure. The appearance of such indications, and *à fortiori*, of any more marked signs of chronic change in the nervous centres, together with the absence of any causes hitherto pointed out, will go far to determine the nature of the case. For these, by such a dietetic management and regimen as shall tend to invigorate the animal functions generally, by absolutely insuring, if possible, the necessary amount of relaxation from wearing occupations, both mental and physical, in the case of those who are too closely engaged in business habits and pursuits, together with the employment of well-adapted mechanical contrivances where their use is indicated, we may conduce materially to mitigate the evil and afford support to the undermined constitution, but little or nothing can be done to repair it.

On the other hand, at the outset of life, while the nervous agencies are extremely mobile, easily excited to undue action, and erratic muscular movements are prone to occur from slight disturbing causes, irritability of bladder, when presented, usually gives way without difficulty, on the discovery of the disturbing agent. A like condition occurs at the approach of puberty in the female sex, and thus we often find the same symptom severely complained of, ushering in the exercises of the menstrual functions. Perhaps there is less of what we are accustomed to call hysteria about the affection in such instances than of ordinary sympathetic action on the part of the bladder with the neighbouring uterus, through the agency of which, in taking on a new relation to the rest of the animal economy, the ganglionic nerves become the media of disturbing action reflected to adjacent viscera. Thus, also, the same thing appears to happen at the critical period of female life, when menstruation is about to cease. Excited action of the bladder is often associated with the uterine derangement then experienced, and sometimes so early as to offer the first announcement of

the approaching change. The recognition of this fact will point out the appropriate treatment, and may save the patient much that is ill-directed, painful and unnecessary.

But even in matured adult age we frequently meet with an equal susceptibility to the effect of stimuli, displaying itself by that proneness to habitual disturbance in the equanimity of the individual which gains for him the popular epithet of "nervous." Whatever the cause, whether it be a hereditary disposition, or a condition acquired, as not unfrequently, either through severe and long-continued bodily or mental exhaustion or both, one of the most obvious manifestations in a few cases is the symptom under consideration. Under some more than usually exciting circumstances, particularly if of a disagreeable nature, the want becomes perfectly uncontrollable, continuous and distressing, while at most times it amounts to an annoyance. On the other hand, the enjoyment of congenial society, and a moderate indulgence in alcoholic stimulant, (so contrary to its effect in all other cases), for the time improves his condition by giving temporary stability to the weak, inconstant, and purposeless activity of the nervous centres. Such a case it is difficult to mistake, while an observation of the character given renders the diagnosis a matter of almost absolute certainty. With time and perseverance much may be accomplished for such patients. Strict attention to every means for improving the general health and promoting the tone of the body, as by generous diet, exercise, country air, sea and other bathing, cheerful society, regular but congenial employment, tonic medicines, especially quinine and the chalybeates, constitutes the necessary treatment. Local applications of belladonna, opium and camphor combined, in the form of plaster, or otherwise, and occasionally the use of opium, conium, or Indian hemp, internally, are often temporarily very useful to patients of this class. The causes, however, of the constitutional condition must be ascertained, and no longer be permitted to exercise their influence. Now, it is partly with such individuals, or among those who are possessed of a similar constitution, that we find an irritability of bladder, originally induced by some palpable physical cause, as by a gonorrhœa, obstinately persisting despite of all treatment, although the lesion has long ago disappeared. The relationship between the nervous centres and the genito-urinary organs is of that peculiar and intimate character, that the symptom exists through the existence of an erroneous mental impression, while all physical cause is wanting, purely as a matter of habit; the bladder having been during some time accustomed to retain only a few ounces of urine, resents any addition, the individual becomes conscious of the

want, and feels impelled to gratify it. It requires some determination to resist the suggestion, but in such case nothing more is needed in order to conquer the habit. We must only be assured that the cause is that which has been described, or the advice will be calculated rather to increase than to remove the evil complained of.

I have thus endeavoured to present a slight and hasty sketch of a considerable number of diseases, many of them widely differing, but in all of which the disordered function under consideration is a prominent symptom, dwelling chiefly not upon those which appeared to be most important in themselves but upon two or three which appear to me to have received less of notice or elucidation in any work upon the subject with which I am acquainted. The degree of attention which circumstances have led me to give to this class of disorders, arising in part from advantages which I have long enjoyed at the Marylebone Infirmary (unquestionably one of the best existing fields for their study which can be presented to the inquirer,) but convinces me how much remains to be achieved, how much more needs to be known respecting their pathology, and how much they deserve and will repay a laborious and patient study. At the same time there are perhaps no disorders to which humanity is exposed for which well-adapted treatment can afford so much valuable aid, either in the way of removing actual disease, or if this cannot be accomplished by checking the progress of the malady, or at least by materially palliating its most painful and distressing symptoms.

[*London Lancet*.

On Spermatorrhæa. By JOHN L. MILTON, Esq., M.R.C.S.

(Concluded from Sept. No. p. 542.)

ON IMPOTENCE.—There are one or two points connected with the pathology of impotence which are not quite so clear as one might wish; or rather, to speak more plainly, respecting which considerable confusion seems to prevail.

The function of generation being the most truly remittent of all we are acquainted with, being liable to cease for years or even for life without any injury to the health, may be supplanted by disordered innervation of some other part. By disordered innervation I mean pain, either gouty, neuralgic, &c., in some *near* part, especially about the neck of the bladder, or else exalted function in some *distant* part, as indigestion, cerebral excitement; and by supplanted I mean, that when these actions are set up, the function of generation ceases, as if the vital

force necessary for it were absorbed by the diseased action. Thus—

OBSERVATION 1. *From Neuralgic Pain*.—A patient, an elderly man, had suddenly become impotent; it had not occurred, as it mostly does on the advance of old age, with a gradual decay, the emissions becoming less and less frequent; on the contrary, it had come on quite suddenly, and at the same time severe pain had set in at the neck of the bladder. This continued with great irritability of the bladder and pains at the glans penis; sometimes a little blood came after passing urine. He was sounded for stone, but none being found, it was considered ulcer of the neck of the bladder. To relieve this, injections of nitrate of silver were tried; the first produced great pain, but some relief followed, and a second was given; the pain after this grew more severe, and now never left him day or night. While at the height of his sufferings, he was attacked with dysentery. I was in the country at the time, and on my return to town I found him rapidly sinking. He died shortly after, and I examined the body. Great part of the colon, and about eighteen inches of the ileum, were almost gangrenous; but nothing abnormal was discovered in the genito-urinary organs, except that the mucous membrane of the prostatic part of the urethra was of a vivid red; the testes, ducts, &c., seemed quite natural.

When Rousseau, in whom both cerebral excitement and spasmodic pain at the neck of the bladder, with retention of urine, occurred at a very early age, producing temporary impotence, died after a life of suffering, no organic change was found, although the organs were examined with the greatest care, so that the physicians concluded that his sufferings had been occasioned by a spasmodic state of the parts near the neck of the bladder, or of the neck itself.

OBS. 2. *From Gouty Pain*.—A gentleman, a strong, healthy active man, in the prime of life, consulted me respecting impotence, of which he gave the following account:—After having been long tormented with flying gout, notwithstanding a very temperate life, he had been suddenly relieved from it in the great toe, the last spot it had settled in, and had been attacked with great pain in the urethra, and some difficulty in passing urine. A bougie was passed, and as the obstruction yielded and recurred very suddenly, the disease was pronounced spasmodic stricture; but from the history of the case, and having met with several very analogous instances, I am induced to suspect that gout in the urethra was the disease, and the stricture and impotence (which was not caused here by the stricture) were its effects.

OBS. 3. *From Heightened Function in other Parts.*—A gentleman applied in extreme terror at having become suddenly impotent. As he appeared young and healthy, I felt surprised at this. It turned out that having neglected his studies until his examination was close at hand, he had become alarmed, and had betaken himself to them in the most irrational manner, going to bed with his book in his hand, ready to begin in the morning, and sitting up in bed to sleep, for fear, if he lay down, he should sleep too long. He had become exceedingly nervous, and found that on thinking of connexion vigorous exertions came on; but that on attempting connexion they immediately subsided, and, while subsiding, emission took place. Quiet, relaxation, and mild aperients, soon restored the balance of the functions.

From Stricture.—When impotence comes on gradually in patients still in the prime of life, as from forty to fifty years of age, the emissions growing gradually more feeble and fewer in number a mere sensation accompanying them, like that of evacuating urine or passing fæces, stricture may often be suspected. It is the more important to attend to this, as many of these patients persist in stating that the stream of urine is as large as ever it was; or never have had gonorrhœa, and having heard that strictures followed upon neglected disease of this kind, they cannot understand how one can occur without the other. When in case of this class the stricture appears to arise from a fold of the mucous membrane growing up, I prefer the application of a *film* of caustic on a *broad* bougie, on the principle so ably advocated by Sir Everard Home.

OBS. 4.—In the autumn of 1852, I dissected with great care the genito-urinary organs of a gentleman who had died of irritative fever, consequent on an operation performed by Mr. Gay for the relief of an impermeable stricture. He had become impotent about the time he began to notice a material diminution of the stream in passing urine. On examination, the urethra was found extremely narrowed near the bulb. Close to this part were two passages, one lying behind the other; they were on the lower side of the urethra, and were both larger than the contracted part of the tube; they were about four lines long, and were lined throughout with mucous membrane; the posterior lip of the second almost entirely overlapped and occluded the natural opening. No instrument could have been introduced into the bladder, and the exit of urine could only have taken place by the force of the stream passing down the valve-like fold of the mucous membrane; that of the semen must, I think, have been very imperfect, if not impossible, and I am induced to believe that this case might have been advan-

tagiously treated by caustic, as I have suggested. I have cured in this way cases which appear to me very similar, for no two are exactly alike, and at this present moment I have one under my care. I invariably adopt it when there is a false passage difficult to steer clear of.

Diagnosis of Spermatorrhæa.—Like many longstanding functional disorders spermatorrhæa may, in time, induce structural change either in the genito-urinary or in the vital organs producing, on the one hand, impotence, on the other paralysis, phthisis, or marasmus, &c. But, in the first place, it is very rarely that these serious changes ensue before the patient seeks for advice. Spermatorrhæa—i. e. imperfect secretion of semen from masturbation, accompanied by impotence from congenital imperfect erection—admits of very limited relief. Impotence consequent on disease of the spinal cord is necessarily incurable. All other cases may, I think, be cured; but it must be borne in mind that in this, as in every long-standing disease, no sudden cure by sleight-of-hand, no miraculous restoration to health can be looked for. Steady perseverance in a rational eclectic plan of treatment will generally effect all that is necessary—the restoration of the balance. The dark fears which beset the minds of patients, and even of medical men labouring under this disease, are as fictitious as the formless shades which Fingal beheld issuing from the halls of Gurth-Loda.

It will thus be seen that I differ widely from M. Lallemand, whom I cannot altogether acquit of lending his great authority to the dissemination of exaggerated views as to the incurability and serious results of spermatorrhæa. Not only has he attributed effects to it which it is not proved to have induced, but he has inferred spermatorrhæa where it appears to me never to have existed.

Thus in a patient who died of stricture, complicated with cystitis and abscesses in every part of the prostate, M. Lallemand referred death, not to these causes, but to the “profound alteration of the spermatic organs;” * this profound alteration consisting in an abscess of the left testicle; the corresponding ejaculatory duct and seminal vesicle being full of pus. Now, how could he believe that such slight disease as this of the testicle and seminal vesicle could produce death, when he must, I suppose, have seen much more extensive disease, not merely of one, but of both testicles, without the health suffering materially? How could he overlook the fact, that patients very often die of cystitis and stricture, and that the testicles may be removed without danger? In another case he attributes the derangement of the patient’s health “to the growing influence

* Vol. 1. p. 45.

of the seminal discharges on the whole animal economy," although in the next page he informs us that long before the cerebral symptoms, which he attributes to the seminal discharges, set in, there was most serious derangement of the digestive and nervous system, &c.

Again, I will just ask the reader to look, among others, at M. Lallemand's thirty-eighth case. I cannot find a single proof that spermatorrhœa was present, yet M. Lallemand comes to this conclusion, because the patient had lately become indifferent to connexion, and passed semen on going to stool. But the explanation seems easy enough. Disgust at the idea of passing semen, the ill-health which generally accompanies this state, and the alarm and nervousness, often render these patients *temporarily* impotent. In many of these cases M. Lallemand tells us that the patients were not aware of their having daily pollutions till he extracted the fact by cross-questioning; these were, I should say, simply cases of vesicular gleet.*

But if I were asked whether any given case was likely to become incurable, I should at once answer that there seems an inevitable tendency in spermatorrhœa to get worse if neglected; that I know of no instance of a spontaneous cure when once day pollutions have set in, and few of well-marked remission; that there seems a very limited power in the generative organs of throwing off diseased action, as if from their representing a system quite unconnected with those of the animal and organic life, marked by a highly remittent function, the steady influx of nervous energy necessary to effect a cure was wanting. When a patient therefore, from day to day puts off the trouble and irksomeness of systematic treatment, it is he who is responsible, not his medical adviser. Then indeed, we may see "a degraded nature and a ruined constitution embittering the best days of the existence, and sometimes leading to insanity or suicide."†

Yet it is scarcely to be wondered at that incorrect ideas prevail respecting this disease, when no one has as yet taken the pains to collect and arrange the many valuable but scattered monographs of Curling, Phillips, Acton, Thomson, and others. Most of the great English works on surgery are silent, or contain little that is calculated to give a comprehensive view of the evil and its proper remedies.—*Ib.*

*I really can scarcely help thinking, that if M. Lallemand had read M. Louis Odier's account of the death and post-mortem examination of Saussure, he would have attributed the death of his illustrious countryman to spermatorrhœa!

†Curling.

On the Condition and Appearance of the Eyes in Diseases of other parts. By Prof. C. G. TH. RUETE.

After some introductory remarks on the value of eye symptoms for diagnosis and prognosis, the author proceeds to the consideration of the condition of the eyes in particular groups of diseases.

1. *Dyscrasiæ*.—In these are especially noticeable, alterations of color in the eyelids, the conjunctiva, the aqueous humor and the crystalline lens, which, nevertheless, rarely indicate a mere abnormal composition of blood, but rather defects of nutrition, circulation and innervation. In chlorosis, anæmia, hydræmia, and similar conditions of the blood, we find bluish or whitish rings about the inferior eyelids, paleness of the conjunctiva and lachrymal caruncle, isolated bluish vessels of the conjunctiva, dull look, and frequently swollen eyelids. Venosity in its higher degrees produces blue rings about the eyes, and reddish-blue coloration of the sclerotica; the latter proceeds from the delicacy of the sclerotica, which permits the deep part of the eye to shine through. This is also found in some diseases of nutrition; in children it is not a morbid symptom. In typhus petechialis and putridus, besides the reddish-blue color of the eyelids, often appear, also, as in scorbutus and morbus Werlhofii [purpura hemorrhagica], bluish spots (ecchymoses) upon the upper eyelids, and reddish spots and lines beneath the discolored, dirty conjunctiva, first at the border of the cornea, and extend thence over the whole conjunctiva bulbi. When the coloring matter of the bile passes into the blood in icterus, yellow fever, &c., the sclerotica, and in higher degree also the aqueous humor, are the first to appear yellow, and corresponding with this an alteration of the color of the iris; *e. g.* a previously blue iris appears greenish. Moreover, a pale yellow color of the conjunctiva is found in old persons, and even in young individuals, when many and somewhat varicose veins, or at times little masses of fat, penetrate this membrane. This latter coloration appears especially in a direct transverse line, whilst the icteric is first observed at the periphery of the globe. The melanotic cacæmia changes the extravasations of blood existing at the time beneath the conjunctiva sometimes into yellow, dark brown, even black, often somewhat marked, melanotic spots, which almost always indicate the existence of similar alterations in other organs. The alteration of the eyes in other dyscrasic diseases, as diabetes, uræmia, lead colic, menostasia, hemorrhoids, scrofulosis, scirrhus, &c., are only derived from the relaxation of the tissues in consequence of disturbances of nutrition, circulation, secretion, and innervation.

2. *Disturbances of the circulation*, are expressed in the eye by hyperæmia, stasis, or anæmia. Active hyperæmia of the eye, by which the vessels of the eyelids and conjunctiva become turgescient, and thus determine a red coloration with increased secretion of tears and increased lustre of the eye, indicates increased action of the heart, or irritation of the nerves of the head and eye. The former is induced by psychological disturbances, inflammations, fever, cardiac hypertrophy; the latter by inflammations of the brain, of the throat, of the eyes, and neuralgia of the trigeminus. Special signs for special diseases in reference to color and vascular distribution are *not* found, except that in bilious fevers a yellowish coloration is observed. Hyperæmia indicates merely determination of blood to the head; and the special form and distribution of the vessels in particular inflammations of the eye do not depend upon the exciting causes, but upon the anatomical structure of the parts concerned. Passive hyperæmia of the eyes and their neighboring parts arises in consequence of obstructed reflux of the blood, or of relaxation of the vascular walls on account of debility of the whole body or of the nerves concerned. We see, then, the vessels of the temporal region, of the eyelids, and of the conjunctiva, in different parts thickened, varicose, livid, often with extravasations of blood beneath the conjunctiva, œdematous swelling of the tissues, aversion to light, and other disturbances of vision. The abnormalities of the lesser circulation, induced by diseases of the trachea, the bronchii, the lungs and their envelopes, of the heart, of the abdomen, by swellings in the proximity of the great veins of the neck, obstruct the reflux of blood from the head. Typhus fever, and all chronic diseases which impair nutrition, scrofula, gout, tuberculosis, rachitis, chlorosis, scirrhus, retard the peripheric circulation, and induce an over-fulness of the small vessels, which lie, like those of the conjunctiva and lids, in easily distensible tissues. In typhous diseases, and in central and peripheric torpor of the nerves of the eye, hyperæmia is induced by weakened innervation. Nevertheless, the causes of hyperæmia must also be inferred from other signs, and this alone affords no pathognomonic sign. Anæmia of the eyes owes its origin to obliteration of the vessels in consequence of chronic inflammations, or of constriction of the same from debility of the cerebral nerves, with simultaneous increased power of resistance of the vasomotor nerves. If the anæmia of the eyes is accompanied by anæmia of the brain, with obscurity of vision, giddiness, fainting, paleness of the face, especially when the long-confined patient gets up again, we must infer a general anæmia, or debility of the muscular power of the heart, which either becomes

diminished by wasting of the body in chronic diseases, or suddenly from psychical and other depressing influences.

3. *Anomalies of secretion and resorption* in the eye, are the result either of abnormal composition of blood, or disturbed circulation and innervation. The qualitative alterations of the fluids of the eye; the presence of bile, sugar, urine, calcareous salts in the tears, in icterus, diabetes, uræmia, gout; the want of alkalescence of the aqueous humor, in rheumatism, scrofulosis, &c.,—are not yet sufficiently determined to become considered as diagnostic signs. We can, nevertheless, conclude upon a perverse composition of blood, from the progressing development of soft cataract, since the nutritive fluid of the lens, of the aqueous and vitreous humors, are secreted without the intervention of glands directly from the blood, the composition of which is thus indirectly manifested in the crystalline lens. The quantitative alterations afford more definite signs, the causes of which are circulatory disturbances. Hyperæmia produces an increased, mostly watery secretion, therefore, in nervous excitation from psychical or other influences, profuse secretion of tears and mucus, even œdema of the lids. Removal of the moderating nervous influence either prevents the secretion, or in consequence of relaxation of the vascular walls, permits the blood-plasma, or even the blood itself to exude; the eye assumes a venous coloration, and is covered with tears, and tough, often blood-colored mucus. Hence comes a wild or vacant expression of countenance, slight dilatation of the pupil, œdema of the half-closed dependent lids. In the highest degree of the disease, even colliquation of the eye follows. These phenomena are found in debilitated states of the trigeminus which do not affect simultaneously the sympathetic, in typhous, putrid fevers, cerebral inflammations, &c., in the last stages of chronic diseases, with long-continuing agony. Œdema of the eyelids, especially observable in the morning, and yielding at evening to swelling of the feet, shows itself often in chlorosis, hydræmia, and in all the conditions which determine cutaneous dropsy. Delicate blondines not seldom have œdema of the lids without inflammation of the circumjacent parts after agitation of mind, colds, and similar affections. Dryness of the eye without previous ophthalmia, in consequence of obstructed secretion of the lachrymal and conjunctival glands, proceeds from a debilitated condition of the cerebral nerves. We find it, *e. g.* in debility of the trigeminus, after fatigues of mind, as a precursor of insanity.

4. *Disturbances of nutrition* are not without influence upon the habitus of the eye; but they cannot by this be recognized according to their specific nature, whilst their consequences,

general plethora, anæmia, fatty disease, emaciation, collapse, laxness of the tissues, are accompanied by very different signs in the eye. The effects of the first have been already mentioned: immoderate general deposition of fat becomes observable, also, in the orbit of the eye and the lids; the globe becomes somewhat prominent, nevertheless, being more than usually covered by the relaxed eyelids, the space between the latter appears diminished. On the other hand, if the orbit becomes narrowed by local swellings, when the anterior lobes of the brain are enlarged, or chronic hydrocephalus occurs, the ocular globes become more prominent, without being covered by the thin, somewhat livid lids. Moreover, the wild or expressionless appearance in cerebral diseases, the intelligent look in rachitis and pædatrophy, the projection of the frontal bone, &c., furnish here sufficient evidences for diagnosis. In gradual emaciation, the fat of the orbit, also, disappears in due time; the globes of the eye retreat, but appear larger on account of simultaneous emaciation of the eyelids, the expression is lax, but cheerful and intelligent when there is no cerebral lesion; the lids, pale at first, become somewhat livid, and when closed permit the iris to shine through as a ring. The condition of the conjunctiva is the same as in anæmia; through it and the attenuated sclerotica we can see the dark background of the eye, presenting a blue appearance. The circumference of the eye shows, especially upon the lower lid, the living ring which proceeds from the thinness and collapse of the tissues, through which hyperæmic veins become visible. If the eyes fall quickly back into their orbits, if they are surrounded with a reddish-brown, violet, or livid ring, the color of which extends, also, to the upper eyelids, this indicates, especially when the features are stiff and immovable, an important sinking of the nervous power and collapse of the tissues, in consequence of loss of fluids, internal hemorrhage, and decomposition of the fluids. We observe this alteration in typhus and putrid fevers, poisonings with acrid poisons, cholera asphyxia, and in the agony after most chronic diseases; it is a sign of approaching death.

5. The *innervation* of the eyes yields to the most frequent disturbances, and furnishes the most important signs, especially in reference to *prognosis*. Uniform, fair, yellowish-red coloration; moderate turgor, and neither too slow nor too swift movement of the eyelids; soft redness of the conjunctiva palpebrarum, and caruncula lachrymalis; moderate tension, and mild lustre of the globe; single, delicate red vessels playing in the white of the sclerotic conjunctiva; in adults a white, in young subjects a uniform bluish white, in the old a yellowish

sclerotica; a certain neither too slow nor too quick changing of the convergence of the axes of vision, which correspond to the object seen; and a dilatation and contraction of the pupil conformable to the degree of light,—these are the signs of an undisturbed innervation. Abnormities are manifested in lesions of the motory nerves by spasm and paralysis, in those of the sensitive nerves and of nutrition, by hyperæsthesiæ and anæsthesiæ.

a. Spastic phenomena in the eye, which do not depend upon idiopathic affections of its different parts, point to an idiopathic or consensual lesion of the brain, without, however, designating more exactly its nature. Trembling and blinking of the eyelids, with a wandering, unsteady look, are found in cerebral irritation, therefore, in disquiet of mind, anxiety, shame, perplexity; also in erethistic, inflammatory fevers, at the commencement of cerebral inflammation, of acute hydrocephalus, delirium tremens, chorea, eclampsia, and epilepsy. A wild look, with quick motions, and parallel direction of the axes of vision, without fixidity upon objects of vision, is a higher degree of the wandering look. It is sometimes connected with fiery redness, sometimes with paleness of the face and is often a precursor of cerebral inflammation and mania, often an indication of sinking of the forces, loss of consciousness and approach of death.

A staring look, immobility of the parallel axes of vision, wide openness of the eyelids, and dilatation of the pupils are found when the thoughts of the patient are directed to one point, in psychical diseases, in corporeal lesions in which the brain is affected, as in violent pains, typhus fever, gastro-malacia, &c. A sad, earnest look, a slight degree of the staring, indicates a mental or corporeal affection with consciousness, and is especially observed in diseases which seriously affect the organism without weakening the mental powers, *e. g.* in scirrhus ventriculi, diseases of the liver and spleen, secondary syphilis, chronic diseases of the lungs and throat. In these the corrugators are contracted, the eyelids half closed, the axes of vision move slowly from one object to another and fall easily into the staring look. Another form of the staring look is observed in severe affections of the brain, with loss of consciousness; the eyelids are wide open, and the globe prominent or sunken, the first from tension of the oblique, the latter from contraction of the recti muscles. This phenomenon is not to be considered an index to the nature of the disease. The same cause occasions the eyes to become distorted. Although in encephalitis, acute hydrocephalus, epilepsy, eclampsia, hysteria, apoplexy, &c., they are mostly turned upwards; yet in the same diseases they also take other directions. In psychical diseases, also, the

direction of the eyes shows only in general a cerebral affection. The searching look of the insane has not at all its apparent significance; it merely reaches the surface, and does not penetrate the thought of the person seen, and very soon loses this appearance itself. Herein are the insane very different from an angry man of sound mind. Many let their eyes fall upon objects without perceiving them, often even the axes of vision intersect each other before they reach these objects; others direct their eyes where nothing is to be seen, mostly because they see spectra. At times the eyes are continually moved and distorted. Most patients cannot bear our glance, they cast down their eyes or turn them away. The eyes have often a peculiar, glassy appearance, and are then more or less staring, which indicates the beginning of a severe attack. Finally, in the more violent attacks the eyes stand with extinguished look, and are then a sign of beginning idiocy.

b. As to the diagnostic importance of the eyes in *paresis* and *paralysis*, we can often draw a conclusion, in reference to the seat of the difficulty, from the paralysed muscles themselves. Upon this point the author lays down the following propositions: 1. The nearer the torpor to the ends of the particular nervous filaments, the more ground have we for considering the cause peripheric. 2. When the paralysis affects all branches of a nervous trunk, the cause lies in that trunk before its division into the peripheric branches. 3. When, besides all the branches of our nerve, neighboring nerves are also paralysed, the cause is to be sought in the central organ itself, or near the place where the first nerve leaves the central organ. 4. When nerves corresponding to one another are disturbed in their function upon both sides of the body, it is supposed that the seat of the evil may be in the central organ; since, however, the distribution of the nervous roots in their central organ, and their connection with the cerebral fibres is yet little known, we must be cautious in adopting this opinion. A dull look only indicates diminished innervation, and is found when the eyelids are somewhat dependent, or even somewhat œdematous, and move but slowly; when the axes of vision fall, indeed, upon the fixed object, but soon deviate from it and move sluggishly and without energy; and when the globe itself takes on a dull lustre. If an inattentive mien is accompanied by signs of sadness or pain, in the first case the axes of vision are turned downwards, in the latter downwards and laterally. We find this in the beginning of typhus and putrid fevers of chronic cerebral diseases, of hydrocephalus, of cerebral softening, in profuse fluid losses, in strong, especially depressing emotions of mind, in the latter stages of severe inflammatory diseases, chronic diseases of

the liver and spleen, lungs and kidneys. It is not, however a key to any definite disease. The extinguished look, which is only a higher degree of the dull look, is a sign of very great cerebral torpor, and of great danger. The eyelids are then, even in sleep, half closed, the upper one depends loosely, especially towards the outer angle, and moves but seldom and slowly. The eye is dirty, and when the resorptive power of the lachrymal puncta is paralyzed, dirty tears run from the outer corner of the eye, the conjunctiva is traversed by dark veins, the pupil is somewhat dilated and almost insensible to the irritation of light, the axes of vision are parallel, and the movements of the eyes, which are never fixed on one object, are slow. If these phenomena are more perceptible in one eye than the other, the same side of the brain is the special seat of lesion. A dull look during waking, which approaches the extinguished look, and is connected in sleep with distortion of the eyes upwards, even with divergence of the axes of vision, indicates always a severe cerebral lesion, which either proceeds from exudation in the sinus of the brain, or from great weakness in putrid and typhus fevers, cholera, asphyxia, or narcotic poisonings. Squinting dependent on torpor, oblique vision, and anæsthesia of particular parts of one or both eyes, are to be judged according to the above-stated propositions, and indicate, when a peripheric lesion of the nerves is not to be detected, that the difficulty is limited to a small part of the brain, which can often be exactly determined. Generally, the cause is a circumscribed exudation or extravasation. If, however, the symptoms are intermittent, the difficulty is of a spasmodic character, and arises from a temporary irritation.

c. In *hyperæsthesia* of the optic nerves we observe sometimes aversion to light, with or without dark or colored or shining appearances before the eyes; with reflex or spasmodic contractions of the muscles of the forehead, of the eyebrows, of the eyelids, of the globe, of the iris, with profuse secretion of tears; sometimes pressing pains in the supra-orbital region and in the globe with aversion to light and nausea; sometimes neuralgic pains in the course of the twigs of the optic branch of the trigeminus, upon which follow secondary lesions of the muscles, of the blood-vessels, and of the secretory organs of the eye. *Hyperæsthesia* indicates a cerebral lesion, the cause of which, frequently, as in epilepsy, hysteria, and other diseases of the brain, remains fully concealed, but which is not seldom connected with other abnormalities, as in gout, hemorrhoid, fluid losses, &c., finally, also, with congestions and inflammations, e. g. hydrophobia, encephalitis, acute hydrocephalus, synochal, erethistic, and typhus fevers. Since the *hyperæsthesiæ* fre-

quently arise from cerebral lesions, the expression of the old physicians is not wholly to be reproached, who declared it a precursor of a new attack of delirium.

d. Anæsthesiæ of the optic nerves, that is, total or partial abolition, either of the power of sense alone or of all the influences which are reflected upon the other parts from irritation of the nerves of sensation, produces in the eye the most various symptoms, according as it is complete or incomplete, and according as the seat of its cause is central or peripheric. The central anæsthesiæ, e. g. the amauroses, are either constant or intermitting. How the latter arise is not yet sufficiently known. The transient amauroses and amblyopiæ, which we often observe in anæmia and congestions, in fevers before the crisis, in intermittent fevers, in nervous or hysteric subjects, indicate, indeed, a cerebral lesion, but they afford no very unfavorable prognosis; if however, they occur at the end of severe diseases, e. g. in phthisis, they always announce death. Anæsthesiæ, especially amauroses, which are developed in a short time, without having their foundation in alterations of the eye itself, are connected through chronic and acute diseases, often with disorganisation of that portion of the brain which is in connection with the organ of vision, and are, at times, the first symptoms of this disorganization. Amauroses, without diseases of the eye or brain, except those arising in diseases of remote parts through consensus, do not occur.—*Schmidt's Jahrbücher. American Medical Monthly.*

The following interesting cases reported by Dr. J. F. Sanford of Keokuk, are found in the Transactions of the Iowa State Medical Society :

Two cases of false joint have occurred in my practice—one within the last 13 months—both successfully treated by subcutaneous scarification of the ends of the bones. The last was a case of ununited fracture of the humerus in a boy 17 years of age, from Missouri, in which there was free motion between the ends of the bones after the removal of the primary dressings, and which continued, notwithstanding the re-application of a fracture apparatus, 5 months subsequent to the reception of the accident, at which time I saw him. By passing a strong tenotomy needle down the ends of the bones, free scarifications of the surfaces was effected, after which the application of a retentive apparatus secured firm union. The object of this procedure is to break up the cartilaginous investment, which after a time cover the rounded ends of the fragments, and to excite effusions of plastic material to serve as the medium of union.

This operation, which I believe originated with me, is not urged as

a substitute for the treatment recommended by Dr. Physick in cases of Pseudarthrosis; nor do I think it will supercede other analagous operations for the same disease. Each proceeding has its appropriate adaptation to particular cases, and should be held in reserve by the surgeon. An important principle in Surgical Ethics is, to adopt the simplest and least painful or dangerous operation in the treatment of cases that will be efficient; and it is upon this principle that we rest the claims of the subcutaneous section in cases of false joint. It is in recent cases, before that entire transformation in the tissues is completed, which ultimately happens, that we would recommend this operation. We are thoroughly convinced that at this period, besides being the simplest, it is the best treatment that can be adopted. The *seton*, *ablation*, *boring*, &c., although perhaps in a majority of cases successful, are more painful and dangerous.

Restoration of Lips destroyed by Calomel without a distant transplantation.—This was the case of a boy 18 years old, who at the age of 5, suffered destruction of both lips from mercurial ulceration. The chasm in the lips was of a triangular shape, the apices upward and downward and the base of the triangle extending nearly from one angle of the mouth to the other. To restore the lower lip, an incision was commenced after extensive separation of the alveolar adhesions, six lines below each angle of the mouth, and carried downward in a semi-circular direction and terminating within four lines of each other. The direction was then changed, and they were carried obliquely upward until they met at the commissure of the opening in the lip. The included flaps were then brought upward and united in the median line by the harelip suture. The upper lip was treated in the same way, and both lips were to a great extent restored. The patient did well. Before the operation, there was a hideous deformity—the patient could not pronounce the labial words—and the saliva constantly escaped from the mouth. After recovery these evils were all remedied. I am not aware that this method of labial restitution has before been executed. We shall hereafter practice it in all cases to which it is applicable.

Immobility of the lower Jaw of 14 years standing, cured by extensive section of the Muscles.—I need not enter into a full description of the history of this case. My principal object is to give a brief detail of the operation, which it will be perceived presents some novel points. —Miss B. was submitted to my attention about the middle of March, 1852. She had been profusely salivated in 1837, during an attack of bilious fever. The mercurial ulceration which extended rapidly, destroyed the alveolar processes of the upper and lower jaws, and these processes, together with the contained teeth separated by the ulcerative action, were taken away. A large portion of the cheek was also destroyed. After recovery, the lower jaw was firmly fixed against the upper. The lost teeth had been replaced by others which had grown irregularly—some inwards and some outwards.

The undestroyed portion of the cheek was firm and hard like cartilage and the posterior angle of the open space was bound together by a band of similar substance. The patient had taken no solid food for 14 years; she subsisted on fluids and alimentary substances reduced to a pulaceous mass and forced between the teeth.

1st Case.—On the 18th day of March, 1852, I performed the following operation in the presence of several medical gentlemen, assisted particularly by Professors Hughes, Arnor and Hudson:

The patient was placed in a recumbent position, lying upon the right side. The incisions to separate the adherent lips and cheek were carried upward to the lower margin of the malar bone, backward and downward to the parotid gland and angle of the jaw; everywhere the parts were tightly adherent, and so dense as to oppose considerable obstacle to the progress of the scalpel. To avoid branches of the facial nerve these incisions were made close to the bone. All the tense and attached parts being free, an attempt was made to insinuate a wooden wedge between the teeth, but without success, as the jaw did not seem to be affected in the least by what had been done. A broad bladed tenotomy knife was then passed into the mouth, and carried to the posterior margin of the masseter muscle, (which was dense and rigid,) and the whole of this muscle freely divided. A further attempt was made to open the mouth, but in vain, and the knife was again introduced, and carried backward and slightly upward into the Temporo-Maxillary region and turned against the Temporalis. After the division of this muscle, the point of the knife was depressed, and carried still deeper into the Pterygo-Maxillary region, and again turned against the Internal Pterygoid, the complete division of which seemed to remove all the obstacles on that side of the face. It was found that the jaw would now yield a little, and the wedge was with difficulty insinuated sufficiently to allow the application of a lever, which I had previously prepared to open the mouth. But with all the force that could be safely applied, the mouth opened only to the extent of one-fourth of an inch. Passing my finger into the mouth to ascertain, if possible, the cause, I found that the Masseter muscle of the sound side was extremely tense and forming quite a prominent ridge in the cheek. The knife was therefore passed beneath the mucous membrane a little anterior to the muscle, passed backwards, and a submucous division of it effected. The fibres gave way with a cracking noise, the ends retracted some distance, and upon the application of comparatively gentle force with the instrument, the mouth was opened to the extent of an inch and a quarter. The instrument was suffered to remain in its position for an hour, and lint passed into the cut parts to stay the hemorrhage. The margins of the open space in the cheek, where now found to be so far separated, that no attempt to bring them together was deemed proper, and this part of the operation was postponed till a future day.

During the whole of this operation the patient was entirely insen-

sible. She readily came under the influence of Chloroform, and no disagreeable symptoms occurred during the operative process.

The instrument being removed, and some wedge-like blocks placed between the teeth, on either side, to prevent closure of the jaw, the water dressing was ordered to the face, and the patient requested to remain quiet.

We need not detail the course of the treatment during the subsequent six weeks. There was considerable swelling of the face during the week following the operation, but inflammatory action was not excessive. Pledgets of lint were kept between the gums and cheek to prevent adhesion, and after two weeks, she was directed to move the jaw frequently, the blocks being left out during the day, and replaced at night. The *Dens Sapientiæ*, above and below, on the left side, which were cut after the mouth became closed, were found, as the swelling subsided, to interfere with the closure of the jaw, and the lower one was removed. This permitted the approximation of the teeth, and mastication was performed with facility. In six weeks all the parts were healed and on the 20th of April we proceeded to close the opening in the cheek.

The extent of this opening, when the case was first presented, was so great as to demand, in our opinion, a transplantation for its closure, but the separation of the soft parts, which had been firmly bound to the bone, the stretching and lubrication which was constantly maintained during the healing, had almost brought together the margins of the opening in the cheek, so that it was now obvious, that a very simple operation would complete the cure.

Accordingly, on the day above mentioned, the patient having been placed under the influence of Chloroform, the margins of the open space having been pared, and a slight band—which in spite of our efforts had bound the lower lip to the gum—separated, the edges were accurately brought together, and maintained in contact by the harelip Suture. The principal care in these incisions, was to secure a proper symmetry of the mouth, and this was effected by previously marking in ink the course of the knife. Upon bringing the parts together, the deformity immediately disappeared. It was now thought proper, in order to prevent undue stretching of the parts, to keep the jaw closed and to remand the patient again the fluid diet.

Nothing unusual occurred during the subsequent progress of the case. The wounds healed rapidly, and on the 13th of May the patient having entirely recovered, prepared to go home.

REMARKS.—The extensive destruction caused by the mercurial ulceration, left room for the formation of those extensive cartilaginous bands, and for the extreme contraction of parts which occurred in this case, and which rendered the extensive division of the soft parts above described essential to a cure. The change of structure in the muscles and ligamentous apparatus of the jaw, and formation of new tissue, precluded the possibility of opening the mouth without the incisions, as has been practiced by some surgeons. We are con-

vinced that a more speedy and less painful cure was accomplished by cutting as we did, than could have been secured by any other process. Even the masseter of the sound side was so changed in structure, and so firmly contracted, that no force which could be judiciously applied could overcome it.

RESULT.—Perfect cure. The muscles regained their power, and the jaw was separated and brought together with great facility so that mastication was entirely satisfactory. The space in the cheek was closed with accuracy, and the healing was so satisfactory as to remove every vestige of deformity. The speech became clear and perfect and the disagreeable escape of saliva was at once arrested.

The following case presents some new features, and may bear upon the question of similar operations at a very early age :

2d Case.—Deformity of the Face.—Gordon, infant, aged 7 days.—Presented early in January, before the medical class, at the college. This was a most extensive deformity of the mouth, there being entire absence of the upper lip, of the hard and soft palate and of the middle portion of the superior Maxillary bone. The Septum Narium projected beyond the level of the face, and the portion of the maxillary bone whose absence at the proper place seemed to allow this unusual developement, was firmly fixed directly upon the point of the nose ; passing over this bone, and projecting somewhat beyond, like a kind of proboscis, was the Columna Nasi, the whole presenting at first view a horrid resemblance to a miniture elephant. Four teeth, fully developed, were loosely fixed in the upper jaw, on each side of the fissures above described.

The great extent of this deformity, and the horrible appearance which it presented, induced the parents to seek immediate relief. The child in other respects healthy and vigorous, was accordingly presented, when only seven days old for this purpose. After consultation with Prof's McGugin, Armor, Hudson and Hughes, who coincided in the propriety of an operation, the infant was brought into the amphitheatre, and delivered to an assistant, with its hands securely fixed. The process was commenced by dissecting up the integuments including the displaced columna nasi from the protuberance on the nose. Carefully preserving the columna to be used in a subsequent step of the operation. The bony growth upon the nose was then removed, when it was found to be firmly connected by cartilage, with the septum and alæ nasi. The projecting portion of the septum was also removed to the extent of half an inch, and was found quite ossified. A question now arose as to the proper manner of closing the large fissure of the upper lip, the margins being separated to the extent of an inch. The plastic and yielding condition of the parts, finally induced me to bring the margins together, previously pared, with the common hair lip suture. A needle was therefore passed deeply through the lip at the prolabial margin, and approximation effected by a few turns of the thread. A second needle, was then passed through the lips at the base of the nose the pendent portion of the Columna, cut off and

pared at the lower end, being pulled down placed in proper position and included in the course of the needle. When the parts were all brought together by this means the deformity immediately disappeared. It was feared the degree of tension in bringing the parts together, and the feeble powers of nutrition in so young a subject would prevent a kindly union, and this fear was ultimately realized. The child seemed to suffer but little from this severe operation, but when the dressings were removed, on the third day, it was found that union had not taken place. The parts composing this portion of the face, had yielded and the chasm was reduced at least one half. Adhesive plasters were drawn across the upper lip, with the view of still further approximating the bones and soft parts, and the parents were requested to return with the child in the following April or May.

April 27th. Child was present at the hospital. The constant traction upon the parts with the plaster had brought the labial margins sufficiently close to justify the ordinary operation for hare-lip, which was accordingly performed. The needles were removed on the second day, but the coating of Collodion previously applied prevented an accurate inspection of the part at that time. On the tenth day, the lip was fully exposed and found to be united in such a way as to perfectly remove the great deformity at first existing, and relieve the unhappy and anxious parents. The child has remained well and vigorous thro' these operations, and grown as rapidly as do children under ordinary circumstances.

REMARKS.—The extraordinary extent of the deformity in this case, seemed to call for an operation at an early age; also the progress of development in the parts would have increased the difficulties, had it been deferred. The yielding condition of the osseous structures at the age of 6 days, facilitated the closure and accurate apposition of the parts. The space to be traversed, rendered so much stretching necessary, that adhesion was prevented, yet the amount of necessary cutting was so great that the lateral parallel incisions through the lips, were not deemed advisable, especially as it was known that remunerating benefit would be obtained, whether there was adhesion or not. I never had a patient who seemed to suffer so little after an extensive operation about the mouth, and although the case proves the propriety and safety of the operation at a period, when the age has been generally thought to contra-indicate it.

On an improved plan of removing Hæmorrhoidal Tumours.

Mr. Henry Lee read a paper upon this subject before the Medical Society of London.

* * * The instances to which the application of nitric acid was adapted were those where hæmorrhage constituted the prominent symptoms, and those in which a protrusion of

unaltered mucous membrane had taken place. The cases in which the application of the strong nitric acid was not sufficient were those in which the submucous tissue had become thickened by inflammatory deposit, or in which the mucous membrane had become hardened and altered in structure from long exposure. In the latter class of cases, when any operation was called for, the plan recommended was as follows:—The patient was first directed to protrude the affected parts. The hæmorrhoid, or a portion of the relaxed mucous membrane, was then embraced by a kind of broad forceps, called a “clamp,” and the part which projected beyond the blades of the clamp were cut off with a sharp knife curved upon the flat. When this was done, the clamp still embracing the base of the tumour prevented the cut surface from either retracting or bleeding. The operation was then completed by touching the cut surface either with the nitric acid or with the actual cautery. The clamp is then removed, and the parts returned to their natural position. In the cases operated upon no trouble from bleeding had ever been experienced after the application of the cautery, which gave little pain and was for this operation to be preferred to the use of the nitric acid. In cases where the parts to be removed could not be sufficiently protruded, the operation was very satisfactorily performed by means of a rectum speculum. The instrument has a slide upon one side, which may be removed. This is made to fit accurately into grooves, so that by being withdrawn to a greater or less extent, a corresponding aperture is left in the side of the instrument. When the speculum is introduced the slide is partially withdrawn, and the instrument is moved about until the tumour or portion of mucous membrane requisite projects through the aperture. The slide is then closed upon the point to be removed, which is thus firmly held between the sides and the rest of the instrument; the portion of tumour or of mucous membrane which projects into the speculum is then removed with a long narrow knife, and the cut surface is touched with the actual cautery as in the first instance. It is not requisite or even desirable to destroy any depth of surface with the cautery. The object in applying it is simply to prevent hæmorrhage, which it effectually does. The advantages of this plan of operating in cases where the application of the strong nitric acid was not sufficient, were:—1. That it is less powerful than any other plan equally efficacious. 2. That it is safer than the common operation now in use. 3. That it requires less confinement, and the patient is sooner convalescent than after the application of the ligature in the ordinary way.

[*London Lancet.*

Elkoplasty, (ελκος Ulcer and πλασσω); or *Old Ulcers treated by Anaplasty*. (Read before the Buffalo City Medical Association, June 27th, 1854.) By FRANK H. HAMILTON, A. M., M. D., Professor of Surgery in the University of Buffalo, and Surgeon to the Buffalo Hospital of the Sisters of Charity.

Some writer has said, "old ulcers in 1830 will be old ulcers in 1860," which not to be understood always in a literal sense, was intended only to express, in a brief and pertinent form the proverbial obstinacy of this class of sores.

In most cases, the integument has been broken and destroyed by ulceration, and then, usually, bad health, or, perhaps enlarged veins, have helped to perpetuate the lesion. In other cases, however, the ulcers are directly in consequence of severe lacerating injuries, which have at once torn away the skin beyond the power of nature to repair; and that although the health of the body and of the limb may be perfect. In such cases, the refusal of the ulcers to heal is entirely owing to the extensive loss of integument.

Actual loss of skin is repaired by one or both of two processes. By the development of new, from or upon the free margin of the old skin, or by the contraction of the granulations and of the cicatrix, in consequence of which, the adjacent skin is drawn towards the chasm, and made, as it were, to slide over and cover it in.

This rule admits of but few exceptions. Occasionally, after a very long delay, the granulations acquire the power of forming new skin at various and isolated points of the sore. This process may now and then be observed in the healing of extensive burns, or, perhaps, in the closing up of an ulcer whose surface is excluded from the air. New skin may even find a matrix in the periosteum, as I have witnessed, and maintained several years since. (*Buffalo Medical Journal*, vol. vii. p. 205.) But the conditions are very rare under which these exceptions can occur. The rule remains as we have stated, and if ulcers are not closed by either the projection of new skin from the margins of the old, or by the contraction of the granulations and cicatrix, then usually, they must remain open. To the action of both of these processes there is, however a limit. The formative power of the old skin does not extend beyond a few lines. The new vessels, becoming more and more attenuated as they stretch inward from the periphery, lose, at length the power of generating epithelial cells, or, if formed, they are too imperfectly organized to sustain an existence, and they crumble away from the slightest provocation. Slowly, but perceptibly, the opaque diaphragm proceeds to

shut in the granulations, and for a long time encourages a hope that a cure is to be accomplished. But just when the work is almost consummated, a rapid disintegration sweeps away in a few hours the patient labor of many months. Again and again the reluctant labor is renewed, and as often suddenly, and without provocation, is it arrested and broken up. At the same time the granulations have ceased to condense, and the cicatrix to contract, either because these actions have attained their natural limits, or because the adjacent skin has reached its utmost tension, and affords effectual resistance to further stretching. Here the process of closure forever ends, and the "old ulcers of 1830 will be old ulcers in 1860."

Nature has done its utmost, and hitherto art has failed to complete the work.

I beg to suggest a procedure, which, hereafter, in some unfortunate cases of this class, may deserve a trial.

I propose to close the ulcer by an operation of anaplasty. In short to imitate one of the processes of nature, by sliding in old skin to repair a waste, where the process of forming new skin has ceased, and been finally given up.

If we seek to obtain this supply from the neighborhood of the ulcer, around which the skin has already reached its utmost tension, we shall only substitute one ulcer for another. We must, therefore, generally look to the opposite limb, or to the limb of some other person, for the material with which the transplantation or engrafting is to be made.

The mode of accomplishing this, will not differ materially from that which has been generally adopted in anaplasty from remote parts, except that the ulcerated surface ought to be excised freely before the new skin is laid upon it.

By this means, I hope, gentlemen, not only to supply an amount of skin equal to the size of the piece transferred, but to furnish, also, a nucleus from which additional skin shall be formed. I hope to establish a new centre of life—an oasis—from whose outer verge a true and healthy vegetation shall advance in every direction over the exhausted soil.

It is not improbable, also, that the graft will itself expand, or be drawn centrifugally by the contraction of the surrounding granulations and cicatrix, conversely, as the skin about the ulcer had before been stretched and drawn centripetally, by a similar action of the granulations and cicatrix situated within its free margin, so that, after a time, it will cover more space, independent of any actual growth, than it did originally. The opposite of this happens usually in anaplasty, and would occur here, did the flap equal or exceed in size the wants of the parts to be supplied. The flap would contract, thicken, and pro-

ject itself above the surface. But in old ulcers, it will generally be found impossible to furnish a direct supply of integument equal to the loss. A deficiency must probably still exist, and sufficient, it is believed, to determine in the transplanted skin a necessity of expansion.

The value and practicability of these views are, I trust, in a measure established by the results, in the case which I shall now take the liberty of bringing before you.

You will excuse me, however, if I detain you a moment longer to explain to you that, so long as eight years since, I proposed the same operation, and had anticipated most of the results which I have now actually obtained.

In the report of my surgical clinic, for 1846, at Geneva Medical College, published in the *Buffalo Medical Journal*, vol. ii, p. 508, occurs the following passage :

“*Indolent Ulcer.* M——, of Geneva.—This lad, now about fifteen years old, had the right leg and part of the thigh terribly lacerated, and almost deprived of its integument, by a threshing-machine, eight years ago. The wound has never closed entirely, but an indolent ulcer of great extent exists, surrounded by a broad margin of hard integument, from which sometimes new skin will form, and then it will rapidly crumble away, and the ulceration will extend, perhaps, beyond its original bounds. Thus it has continued to partially close and again open, during all this time; meanwhile, the health and strength of the lad have remained excellent, but the leg has become bent at the knee, and he walks with a halt. Two years ago Dr. Hamilton took a cast of the ulcer, which is now seen to correspond almost precisely with its present extent.

“Dr. Hamilton and others having tried almost every plan of treatment which would offer a prospect of success, and having so completely failed, as Dr. Hamilton believes, because the indurated margin near two inches in breadth—all around the sore, is incapable of projecting from itself sound skin, the Dr. has proposed to the boy a plastic operation, with the view of planting upon the centre of the ulcer a piece of new and perfectly healthy skin. He proposes to take this from the calf of the other leg (having secured the two together,) not intending to cover the whole sore, but perhaps two or three square inches, which he believes will be enough to secure the closure of the whole wound in a short time.”

Two years before the date of this clinic, when I took the cast alluded to in the above report, I had made the same proposition to the lad, and when he declined submitting to it, I appealed to his father, who was a worthless inebriate, to allow me to secure one of his legs to his son's, that I might make the transplantation from him. In no other way, I assured him, could he so much benefit his family.

I need scarcely say that permission was never obtained, and that I have never found an opportunity of determining the practicability of my suggestions until during the last year, and in the person of the man who is now before you.

The following is the report of the case, copied, in part, from the Hospital Records :

Horace Driscoll, aged 30 years ; Irish laborer ; had the skin and flesh extensively torn from the right leg by a dirt cart, on the 3rd of November, 1852. He has been in the hospital most of the time since then until now. The wound has nearly healed several times, but never entirely ; after exercise the whole would give way, and the ulcer again extend itself completely around the leg.

Jan. 21, 1854, I made the following operation :

The patient was laid upon his belly, upon the operating table before the class. A flap of skin measuring seven inches by four was then raised carefully from the calf of the opposite leg, extending in depth through the cutaneous and cellulo-adipose textures, until the fascia was in sight. Its remaining attachment to the body was by a broad and thick base. The hæmorrhage was slight ; no vessels were tied. Lint, spread on both surfaces with simple cerate, was laid between the flap and the surface from which it had been detached, other pledgets of lint similarly covered were placed on the outer surface, while over all and around the entire limb was wrapt a large mass of cotton batting, secured in place by a lightly turned roller.

He was then laid in bed and perfect quietude enjoined.

Jan. 22. During the night the wound has bled until the patient looks pale from the loss. The bleeding has now ceased.

Feb. 4th. Two weeks since the flap was raised. The patient has had to be sustained with beer, his appetite having failed very much since the operation. The flap has been dressed in the same manner as at first, nearly every day. It looks healthy. No part of it has sloughed.

To-day the operation was recommenced before the class, by dissecting out the granulations and part of the cicatrix from the diseased leg, and thus forming a deep bed of the size and shape of the flap as it now appeared, both contracted and thickened. The flap was then made raw again on its margins, and its lower surface was shaved off, with the double purpose of removing the granulations, and of diminishing its excessive thickness. When the bleeding had ceased, the left leg was carried across the right, so that the tendo-Achilles and heel of the left leg rested upon the instep and ankle of the right—a thick cotton pad being interposed to prevent painful pressure. The flap was now brought snugly into its new bed, on the right

leg, and well secured with interrupted sutures, a moderate compress, and roller. The two limbs were further secured immovably to each other by bands, and protected at various points by well made compresses, and the wounds carefully covered with lint spread with cerate.

Feb. 5th. The wound has bled again, as after the first operation, although ice was applied diligently from the moment the dressings were completed. Much pressure was regarded as inadmissible. Bleeding ceased when he became faint, about three hours after the operation.

Feb. 18th. Two weeks since the last operation, and four weeks from the first. Patient has required to be sustained constantly with beer and nourishing diet. His appetite still remains bad. Bowels have not been moved in two weeks. He has not suffered much pain, only fatigue. To-day the base was separated from the left leg, the flap having united through most of its edges and under surface, to the opposite leg. No bleeding of consequence followed. The parts were thoroughly washed and dressed with ung. basil. and a snug roller applied. Ordered sulph. mag. ʒj.

Feb. 19th. No movement of bowels. Repeat sulph. mag.

Feb. 20th. One corner of the extreme end of the flap is beginning to slough.

Feb. 21st. Bowels have moved. Sloughing of flap continues. Ordered yeast poultice.

Feb. 25th. Line of demarcation formed, insulating about one inch and a half of the flap, at the corner where the sloughing commenced.

Beyond this the sloughing never extended. The surfaces continued to close, and about one hundred days after the flap was laid down the healing was finally consummated, and now after a lapse of nearly three months, during which he has been acting as a subordinate dresser at the hospital, the ulcer has not re-opened or shown any tendency that way.

The wound made by the removal of skin from the left leg was completely healed over in about the same length of time as the ulcer on the right, and the whole left limb is now as sound and as perfect as before the operation.

Driscoll is, however, at present, by no means a well man. His health has suffered considerably from his long illness, and from his prolonged confinement in bed, which dates from the time of the accident, through most of the period, up to the time of the closing of the wounds since the operation. The cicatrix around the new skin is tender, and especially at one point where several pieces of bone exfoliated soon after the accident and precisely over which, unfortunately, the sloughing of the

flap took place. The ankle is also somewhat stiffened by the contraction of the skin, and of the gastrocnemii and tendo-Achilles, which latter were seriously involved in the original injury. These, however, are conditions which the operation did not propose to remedy, at least only in a small degree, or they are temporary accidents, and will certainly yield to time and careful use. If they were to continue, however, it will not be denied that, in the permanent sealing up of a sore, which, but for this operation, must probably have remained open during life, he is amply repaid for all that he has suffered at my hands. I venture to predict that, within one year from this time, he will be able to labor nearly or quite as well as before the accident.

On the 12th of March, five weeks after the flap had been transplanted, it had united by adhesion to the adjacent skin, through about one half of its circumference. The other half was surrounded by a border of granulations and of new skin, varying in breadth from one to ten or fifteen lines; but only at a few points was the bridge of new skin complete. It was especially noticed that nearly all, probably nine-tenths, of this new skin had sprung from the margins of the flap, and only the remaining fraction from the adjacent cicatrix; demonstrating that after transplantation and complete separation from the parent limb, its vitality was unimpaired, and that its reproductive power, if I may so speak, was vastly superior to the reproductive power of the old cicatrix.

You may notice to-day also, that since the cicatrization was completed, the cicatrix formed by growth from the flap, has contracted; and, that, in consequence of this contraction, the flap has become expanded, or been stretched outward, and its surface has become flattened and firm, whereas, it was, at first and for a long time, elevated above the surrounding skin, and flabby.

Summary: 1st. Ulcers, accompanied with extensive loss of integument, do generally refuse to heal, whatever may be the health of the body or of the limb.

2d. Anaplasty will sometimes succeed in accomplishing a permanent cure, and especially where the health of the body and of the limb are perfect, and where, by inference, the refusal to health is alone attributable to the extent of the tegumentary loss.

3d. The graft must be brought from a part quite remote; generally from an opposite limb, or from another person.

4th. If smaller than the chasm which it is intended to fill, the graft will grow, or project from itself new skin to supply the deficiency.

5th. It is not improbable that the graft will expand during the process of cicatrization at its margins, but especially for a time after the cicatrization is consummated.

6th. In consequence of one or both of these two latter circumstances, it will not be necessary to make the graft so large as the deficiency it is intended to supply.—[*N. Y. Jour. of Med.*

Simaba Cedron, a Substitute for Quinine.

Dr. Samuel S. Purple publishes in the New York Journal of Medicine, practical observations of interest in relation to the medicinal properties of this new agent. The author used the cotyledons or seeds, reduced to a powder by grating, in doses of 10 grs. The following are his conclusions:

Finally:—From the declared experience of various observers of the medicinal effects of the *Simaba cedron*, we are warranted in drawing the following conclusions regarding its therapeutic action:—

That it possesses decided anti-periodic, properties and is therefore applicable in the treatment of periodic diseases.

That it is less likely than quinine to produce the aggregate of encephalic or neuropathic phenomena, induced by overdoses.

That it may, in large doses, repeated often, produce griping of the bowels, and even diarrhœa; but that these conditions are easily controlled by appropriate medicaments.

That, as a remedy in intermittent fever, it possesses properties, in many respects, equal to quinine, and in most cases is equally adapted to the curation of this disease.

That in the treatment of yellow fever, it does not appear to possess any particular advantages over quinine, but nevertheless is equally well adapted to fulfill the indications which call for the use of this latter remedy.

That it possesses marked tonic properties, and deserves a prominent place in this classification of the *Materia Medica*.

That in chronic dysentery, diarrhœa, dyspepsia, and all states of the stomach, accompanied with impaired or difficult digestion its use will be found to be attended with benefit.

That, should a demand arise for its use in medicine, it is believed that it will be found not difficult to obtain a supply, in quantities sufficient to afford it at a much less price than quinine.

Treatment of Cancers.

Prof. M. L. Knapp, of Cincinnati, advocates strongly (New York Journal of Medicine) the treatment of schirrous affections by systematic compression and low diet. In lieu of Recamier's

bandages for compressing the mamma he suggests the use of a modification of Hull's truss, one of the pads resting upon the back of the chest, and the other upon the tumor. The idea is a good one, but the author is reminded by the Editors that a somewhat analogous instrument was invented by Dr. Arnott, which is thus described in Dr. Walsh's work upon Cancers :

"His apparatus consists of a spring, an air-cushion supported by a flat resisting frame or shield, a pad, and two belts. The spring, which is of steel, is the compressing agent, its strength being varied with the amount of pressure it may be desirable to obtain. The shield, varying in shape, somewhat, with the circumstances of particular cases, is generally slightly convex on the external surface, of circular or oval outline, and formed of a rim of strong wire, connected at two opposite points by a flat piece of iron, which serves for the support of the spring, screws, etc., the whole being covered with jean. To the rim of this shield is sown a sort of conical cap of soft linen, designed to receive the air-cushion, to keep it constantly slack, and prevent it from slipping about when applied. The air-cushion thus kept slack, fashioned into a sort of double nightcap, lying in apposition with the inner surface of the shield, and sufficiently filled with air to prevent the latter from pressing directly on the part which receives within it the tumor to be compressed. One end of the spring is attached by screws to the external surface of the frame, and the other end to a solid, but soft pad placed wherever the contre-pressure is to be made. The straps are used to keep the apparatus steadily fixed."

On the Differential Diagnosis of Hydrocele, and the Diseases with which it may be confounded. By R.G.H. BUTCHER, Esq.

HERNIA.

Begins above.
Changeable in bulk.
Engages ring.
Feeling of weakness.
Can often feel intestines, or omentum.
Testicle at the bottom.
Opaque : in child sometimes transparent.
Base of tumor above.
Flatulence, dyspepsia.

HYDROCELE.

Begins below.
Unchangeable.
Ring free.
Feeling of weight.
Can feel nothing.
Testicle at back part.
Often transparent.
Base of tumor below.
Bowels not deranged.

VARICOCELE.

Soft, like earth-worms.
Changeable, like hernia.
Ring dilated often.
Testicle distinct.
Testicle wasted.
Tumor whole length of cord.
Tumor light.

VENEREAL TESTICLE.

Both engaged generally.
Tumor very heavy.
Hard all over.
Size moderate.
No fluctuation; sometimes small quantity of fluid.

Tumor slanting.
Painful to handling.
Solid contents.
Eruption or sore throat.

SCROFULOUS TESTICLE.

Round in form.
Never very large.
Solid.
Heavy.
Lies at the bottom of the scrotum.
Inflames in spots.
Suppurates, fungates.
Scrofula in other glands.

FUNGUS HÆMATODES.

Tumor irregularly hard and soft, hardness predominating in early stages.
Shape, globular generally.
Rapid in growth.
Painful.
Opaque.
Elastic.
Chord becomes hard and knobby.
Pains up loins.
Health impaired.
Fungates.

CANCER OF THE TESTICLE.

Hard, knobbed.
Small.
Round.
Painful on handling.
No fluctuation.
Chord knobby.
Adheres to scrotum.

HYDROCELE.

Tense, elastic.
Unchangeable.
Ring closed.
Testicle indistinct.
Enlarged, if distinguishable.
Tumor at bottom.
Tumor heavy.

HYDROCELE.

One tunica vaginalis generally.
Tumor not so heavy.
Hard only at back part.
Often very large.
Fluctuation.

Tumor perpendicular.
Not painful.
Fluid contents.
None such necessarily.

HYDROCELE.

Oval in form.
Often very large.
Fluctuating.
Light.
Grows upwards.
Never so.
Never suppurates.
Not so.

HYDROCELE.

Uniformly smooth.

Oval generally.
Slow in formation.
Free from pain.
Transparent.
Fluctuating.
Chord sound.
No such pains.
Not so.
Never.

HYDROCELE.

Soft, smooth.
Large.
Oval.
Not so.
Fluctuation.
Chord soft.
Never.

CANCER OF THE TESTICLE.

Glands in groin enlarged.
 Shooting pains.
 Fever peculiar.
 Fungates.
 Death.

HYDROCELE.

Never engaged.
 Never (in loins).
 No fever.
 Never.
 Never.

In hydro-sarcocele the testicle will be found hard, painful, irregular, large at the back part, with some fluctuation in front. Testicle distinguished in hydro-sarcocele, not so in hydrocele generally. Shooting pains on handling the former, not so in the latter. If obscure, the tumor may be tapped, and then the enlargement of the testis will be discovered, and the water small in proportion to the size of the tumor.—[*Dublin Jour. of Med. Science.*

EDITORIAL AND MISCELLANY.

BIBLIOGRAPHICAL.

The Modern Treatment of Syphilitic Diseases, both primary and secondary ; comprising the treatment of constitutional and confirmed Syphilis by a safe and successful method ; with numerous cases, formulæ, and clinical observations. By LANGSTON PARKER, Surgeon to the Queen's Hospital, Birmingham. From the third and entirely re-written London edition. Philadelphia: Blanchard & Lea. 1854. pp. 316. (For sale by McKinne & Hall.—Price \$1.75.)

However much may have been already written upon the subject of Syphilis, the field is yet fruitful, and the results of twenty years' practical observation, comprehending the treatment of upwards of eight thousand cases by a judicious man cannot be without value. We have had occasion, heretofore, to direct the attention of our readers to some of Mr. Parker's views, and are now happy to see that they can obtain his matured work in full. It is so eminently practical, and in some respects original, that we would advise its attentive perusal.

Auscultation and Percussion. By Dr. JOSEPH SKODA, Translated from the 4th edition, by W. O. MARKHAM, M.D., Assistant Physician to St. Mary's Hospital. Philadelphia: Lindsay & Blakiston. 1854. pp. 380. (For sale by McKinne & Hall.—Price \$1.00.)

A Clinical introduction to the Practice of Auscultation and other modes of Physical Diagnosis, in Diseases of the lungs and heart. By H. M. HUGHES, M.D., F.R.C.P., Assistant Physician to Guy's Hospital, &c. 2d American from the 2d and revised English edi-

tion. Philadelphia: Blanchard & Lea. 1854. pp. 304. (For sale by McKinne & Hall.—Price \$1.00.)

The advances that are being continually made in diagnosis by means of auscultation and percussion, demand the frequent issue of new works upon the subject. Whilst beginners will generally prefer the "clinical introduction" of Dr. Hughes, the more advanced will find the production of the German author exceedingly valuable, and full of practical details as well as original views. We have repeatedly expressed our surprise that so many physicians are willing to practice medicine without a knowledge of auscultation and percussion; we need scarcely say anything more at present than that the opportunity is now furnished of supplying the deficiency at a small cost.

The Pathology and Treatment of Pulmonary Tuberculosis; and on the local medication of Pharyngeal and Laryngeal diseases frequently mistaken for, or associated with Phthisis. By J. H. BENNETT, M.D., F.R.S.E., Professor of the Institutes of Medicine, &c., in the University of Edinburgh, &c., &c. Philadelphia: Blanchard & Lea. 1854. pp. 130. (For sale by T. Richards & Son.)

This is essentially a *practical* book, and is therefore intrinsically valuable. Prof. Bennett has had ample opportunities for observation and has made good use of them. The main object of this work is to show that tubercular diseases will heal of themselves, if the faulty nutrition of the system can be removed; and that our efforts should be directed to the digestive rather than the respiratory system. His experience in the use of cod-liver oil is especially valuable, now that this remedy is so much resorted to.

Healthy Skin: a popular treatise on the Skin and Hair, their preservation and management. By ERASMUS WILSON, F.R.S., &c., &c. 2d American from the 4th and revised London edition—with illustrations. Philadelphia: Blanchard & Lea. 1854. pp. 290. (For sale by T. Richards & Son.)

The able author of the treatise on Diseases of the Skin has furnished us in the above-mentioned little volume, an interesting and useful hygienic guide. It is proper that such a work be written in a popular style, and it ought to be extensively patronized by the non-professional public, as well as by their medical advisers.

We have upon our table a large number of pamphlets, circulars, &c., some of which will be noticed hereafter.

Yellow Fever.—The prevalence of yellow fever in Charleston and Savannah, its importation and tendency to evolution in this city, and its probable occurrence in various parts of the country in the persons of those who leave the infected districts, makes it desirable to know the views of those who have tried new remedies in its treatment. We therefore willingly depart from our usual course in giving place to the following publications found in the Savannah newspapers. We are not disposed to find fault with the writers for having, under the circumstances, made non-professional papers the medium of their communications.

“MESSRS. EDITORS—Gentlemen: I notice in your papers of this morning an allusion to the ‘Muriated Tincture of Iron,’ as a remedy in cases of ‘Yellow Fever.’

Several reasons, which I cannot now enumerate, have prevented me from hitherto giving this remedy publicity through the columns of the city papers. Feeling, however, that it is my ‘duty to place this new mode of treatment before the public,’ I beg to publish the following facts in connection with it:

1. I have treated over one hundred and fifty cases of Yellow Fever since 21st ult., and of that number not one has died who commenced this remedy prior to ‘Black Vomit.’ And,

2. Since 21st ult., *I have not administered five doses of any other medicine.*

I give the Tincture in doses varying from 20 to 60 drops every two (2) hours in a table-spoonful of water for adults; and smaller doses for children. The cure is generally perfected in three days. This preparation of Iron acts by medicating the blood and exerting its styp-tic qualities upon the coats of the stomach.

I would respectfully call the attention of the medical profession to this preparation of Iron, as an invaluable remedy in Yellow Fever.

In conclusion, I would suggest that 10 drops of this medicine in a little water be taken by every citizen remaining in Savannah three times daily, as a *preventive* of the Yellow Fever.

I am yours respectfully,

Sept. 2, 1854.

P. H. WILDMAN.”

“MESSRS. EDITORS:—Having read the remarks of my friend Dr. Wildman, I take pleasure in adding my testimony to the truth of what he has stated in reference to the general efficacy of the Muriated Tincture of Iron in the epidemic now prevalent in our city.

It has been observed by some of my medical brethren that its use was at variance with all our preconceived ideas of the pathology of Yellow Fever, and I confess myself to have entertained similar views when it was first suggested to me in consultation with another practitioner, as a remedy for the fatal black vomit. But I am sure that

many of the articles of our *Materia Medica* have been from time to time improperly classified, and from the experience, during the last two or three years, of Tincture of Iron in Erysipelas, it cannot reasonably be considered as contra-indicated by the existence of inflammation. I am confident, from close observation of its effects in a large number of cases of Yellow Fever, that its action is that of a refrigerant diaphoretic—that it allays pain, and produces sleep, and by preserving the integrity of the blood, enables the system to resist the depression so universally attendant upon the second stage of the disease. It presents, in fact, a very happy combination of Hydrochloric acid, in excess, with iron, the former of which, it is well known, has been given with great success by the celebrated Dr. Paris in malignant forms of fever, while the latter, Iron, has been universally acknowledged as an incomparable tonic from time immemorial.

I concur entirely with Dr. Wildman, that it should be exhibited at the earliest possible stage of the fever, and, when possible, without awaiting the preliminary action of any other medicine. It is well known that the revulsive influence of a salivation has always been regarded as the great desideratum of the Mercurial treatment in Yellow Fever; and I am convinced that it will be no small recommendation of the Muriated Tincture of Iron to the profession when it is understood, as I am now prepared to assert, that it will produce salivation in a much greater number of Yellow Fever cases, than Calomel will. This effect, due to the free Hydrochloric acid, is very far from being attended by the pain and discomfort of Mercurial ptyalism, and is moreover, not at all indispensable to a cure.

With respect to the dose, it must necessarily be discretionary with the practitioner, and it cannot be necessary to remind the profession that even the U. S. Dispensatory allows a maximum of two fluid drachms. There cannot, I think, be any question of its decided utility; and in conjunction with sinapisms and blisters will be found to diminish the mortality to a very inconsiderable proportion when brought into action before the supervention of black vomit.

In conclusion, I beg to remark that the presence of a terrible pestilence amongst us, and the necessity for immediate action, must constitute my apology for departing from strict medical ethics in addressing the profession through the daily press.

Savannah, Sept. 3d, 1854.

S. N. HARRIS, M. D.

Muriated Tincture of Iron.

To the Editor of the Morning News:

I feel very little inclination to obtrude my opinions, and especially my medical opinions, on the community, through the secular press; yet, as many of my personal friends and patrons have desired an expression from me in regard to the use of the Muriated Tincture of Iron in the existing epidemic, I cannot do otherwise than frankly state, through the medium of your paper, that under certain circumstances it is a remedy of much value; while in the great majority of

the cases of yellow fever—such as have fallen under my observation—it was not only not beneficial, but absolutely injurious. I have given considerable attention to the use of this remedy, as it was recommended to the attention of the profession by the able and accomplished Dr. John Bell, of Philadelphia, in erysipelas, two years ago. Acting upon his suggestion, I tried the remedy in that disease, and had reason to be pleased with its use when appropriately administered. When scarlatina prevailed in this city during the past year, I used it in that disease with much success, and published the more important cases in the *Charleston Medical Journal*, conceiving the analogy, in a pathological point of view, quite as striking between the present epidemic and scarlet fever, as between the latter disease and erysipelas. I suggested the remedy to some of my medical friends before the present epidemic made its appearance, and used it in three cases prior to the 15th August last. In some cases it proved a valuable remedy, but, unless I am very much mistaken, it is not the *particular* preparation of iron that should be used universally.

Iron I believe to be the *very best* remedy that the *Materia Medica* offers us in yellow fever, but it must be borne in mind that it has several preparations, and these preparations may be used in conjunction with other remedies, so, as when judiciously combined, to meet all the indications for iron. I do not believe in *specifics* in medicine, nor in the indiscriminate use of any one remedy or combination of remedies, in any particular form of disease.

Every practitioner must have met with cases in which a remedy of known efficacy in a particular form of disease—quinine for example in intermittent fever—was wholly inadmissible, yet quinine is perhaps the very best anti-periodic known. How then is it possible that the Muriated Tincture of Iron is *the* remedy when in yellow fever the liver in one case, and the kidneys in another, refuse to eliminate or secrete the bile or urine. Would it not be more in accordance with reason and therapeutics to select some preparation of medicine. Iron, if you please, in the first place, calculated to relieve the one or other of these conditions, and not apply the same remedy, regardless of these or other functional derangements. I have kept such notes as the pressure of business would allow, of several of the more important cases of yellow fever, which have fallen under my observation, with the treatment, &c., with a view of publishing them through a Medical Journal.

H. L. BYRD, M. D.

Mortality among the Physicians of Savannah.—We regret to find among the victims of the epidemic prevailing in Savannah, the names of Drs. P. H. Wildman, F. W. Schley, S. N. Harris, T. M. Ellis, and C. H. Welles.

Professors BARTLETT and SWEET, of New York.—We regret to learn that the ill health of this distinguished teacher (Prof. Bartlett)

will prevent his lecturing next week. It is also intimated that Prof. Sweet will not be able to discharge his duties in the University.

Gastrotomy.—Dr. John T. Gilman, of Maine, reports in the Amer. Journ. of Med. Science, an interesting case in which Gastrotomy was performed twenty-one hours after rupture of the uterus, and a dead child removed from the abdominal cavity, with successful result.

Removal of the Astragalus.—Dr. F. M. Robertson, of Charleston, S. C., has successfully removed the astragalus, in a case of irreducible dislocation. (Am. Journ. Med. Sc.)

“The People’s Gazette,” edited by Dr. Davis, of Abbeville, S. C., has been discontinued.

Circular.—The undersigned, having been appointed by the American Medical Association, to report upon “the physiological peculiarities and diseases of negroes,” invites communications upon the subject from the physicians of the Southern States.

A. P. MERRILL, of Memphis, Tenn.

Gleet.—The “*Rep. de Pharmacie*” recommends the following prescription as being useful in gleet of long standing. R. Pulv. secale cornut., 3j.; ferri sulph., gr. j.; camphoræ, vanillæ, aa gr. ss. M. et to divide in chart., No. xx. One to be taken morning and evening. [Boston Med. and Surg. Jour.]

Tooth-ache.—An American practitioner recommends a solution of copal in chloroform, as a specific in tooth-ache, dependent on caries. The cavity of the tooth is washed, and filled with a bit of cotton dipped in this solution; the pain disappears as by enchantment.—*Cosmos*. [Va. Med. & Surg. Journal.]

Hæmorrhage from Leech Bites.—Lastelle, in the *Repertoire de Pharmacie*, suggests the use of the carbonate of iron in obstinate hæmorrhages from leech bites, and states that it is very effective.—[*Ib*.]

Leucorrhœa.—M. Arendt, a German physician, states that he has generally been able to cure ordinary cases of leucorrhœa in three or four days by weak injections of creosote. He uses two drops to the ounce of water, repeating twice or thrice a day. Some mucilage, we think, ought to be added, to make this a proper mixture.—[*Ib*.]

Transparent Cement.—According to Leuher’s *Belgique Industrielle*, this may be prepared by dissolving 75 parts of caoutchouc in 60 parts of chloroform, and adding to the solution 15 parts of mastic.—[*Ib*.]

Anasarca.—In the dropsy which supervenes upon scarlatina, Prof. Mauthner, of Vienna, (*Journal für Kinderkrankheiten*,) employs with success urea, or else the nitrate of urea, as a powerful diuretic. The dose of this remedy is the third of a grain, given in powder with sugar, every two hours.—[*Ib*.]

Cure of Itch.—Take finely powdered brick dust and rub the body well with it, so as to expose the *acari* to the sulphur ointment, which is then to be applied; the friction to be carefully kept up for half an hour. After this the patient is subjected to a good ablution of soap and water. The whole time occupied by this proceeding is less than an hour and a half. A perfect cure will be the result.—[*Ib*.]

Hiccough.—After sugar and water have failed, Rayer advises that the pharynx should be touched with a pencil dipped in liquor ammonia. On the continent it is common to administer syrup of currants, or the vinegar of beer; different ethereal preparations, and Hoffmann's anodyne liquor especially, are relied on by many physicians; some authors advise chloroform in potion and even in inhalations. Dr. Ossieur states, in the *Ann. Med. de Roulers*, that having treated a case of hiccough, which had lasted for eight days, with the remedies we have enumerated, without success, he finally checked it by administering fifteen drops of aromatic sulphuric acid, with forty-five drops of currant syrup in three table-spoonsful of water, every half hour.—[*Ib*.]

Purpura Hæmorrhagica.—Dr. George Willis (*Edinburgh Monthly Journal*) reports a case of purpura which was promptly cured by the administration of oil of turpentine. This case corroborates the opinion of Nelligan in respect to the efficacy of terebinthinate preparations in this disease, which has been advocated by Dr. Patterson, in the March No. of this Journal. (See vol. ii., p. 483, *et seq.*)—[*Ib*.]

Chloroform Vapor in Tenesmus.—Ehrenreich relieves the tenesmus of dysentery by the vapor of chloroform passed into the bowel through a syringe and common canula.—[*N. Y. Journ. of Med.*]

Belladonna in Salivation.—Erpenbeck used the extract of belladonna, grs. ij ss. in an emulsion in 24 hours with perfect relief.—[*Ib*.]

Ulcer from Irritation of Nails.—Mr. Ure applies a hot saturated solution of alum continuously to the part. This induces rapid absorption of the thickened cuticle and prompt cicatrization of the ulcerated surface.—[*Ib*.]

The Hahneman Hospital.—This institution has ceased to exist: furniture and effects were sold by auction, on the 14th inst. by Messrs. Debenham and Storr. It has scarcely carried on its miserable existence even for the time which we allotted it.—[*London Lancet*.]

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ORIGINAL AND ECLECTIC.

ARTICLE XXXII.

Remarks on Roseola, &c. By G. T. WILBURN, M. D., of
Brownville, Alabama.

DR. DUGAS—In the July No. of your Journal is found the following extract :

“We have had an eruptive fever here for a month or two, and I understand you have had the same, or a similar disease, in Augusta. There is diversity of opinion among the ‘faculty’ here, as to its character. I think the majority of the cases are Roseola, and a few cases of Scarlatina; the other physicians say, it is all Scarlatina. If you have had the same epidemic in Augusta that we have had, I, for one, would like to have your views on it through the Journal.”

The disease here spoken of, or a similar one, prevails to a considerable extent in this section. The majority of the cases were Roseola—none Scarlatina. I have notes of the cases attended, which were taken at the bed-side. The first case within my neighborhood I did not see, but I noted its details from the description of it by the patient, who is quite an intelligent lady.

CASE 1. Miss M. W., æt. 22—plethoric—had visited a family some distance from her residence, and remained some four or five days. About a week after her return, she felt unwell. Several children of the family visited had what was supposed to be scarlatina. She expected to be similarly affected.

Symptoms.—Fever, sore throat, head-ache, cough; tongue,

gums and teeth were sore ; some swelling of the throat ; red spots first appeared upon the face and spread over the entire surface, irregular in form, producing a burning, smarting sensation. No sloughing, no scales, no roughness of the skin. The efflorescence continued nearly a week. Felt relieved after the disappearance of the spots. She did not take anything, and got well in a week.

Such are the symptoms as related by the patient, and I do not think that any intelligent physician would select this as a case of scarlatina. It is to my mind a case of *roseola æstiva*.

CASE 2. Miss E. A., æt. 10: Sanguine temperament ; fine figure, robust, and of good constitution ; complains of giddiness and head-ache ; considerable thirst ; distressed with heat, and aching of her limbs ; tongue slightly furred ; costive ; restless. No efflorescence discovered on first visit. Considering it, however, a case of *roseola*, I gave an emetic of *ipecacuanha*. On the second visit, found the rose-colored efflorescence over the entire surface, and variously figured—some very small, others as large as a half dollar. Gave no medicine ; she recovered in four or five days.

This case differs slightly from the first, though I think the disease the same.

CASE 3. Miss D. P., æt. 28: Nervous temperament ; not very healthy. Complains of constant and acute pain in the head ; aching of the eyes ; general weakness ; loss of appetite ; flushing of heat ; the pulse full ; head hot ; bowels costive ; periods irregular—no efflorescence discovered. Considering the attack due to costiveness and irregular menstruation, I bled freely ; applied a cataplasm to the spine, gave a cathartic, ordered mustard foot-bath, and hip-bath at night. On second visit, discovered spots about the face and neck, arms and hands. The efflorescence was not general and soon disappeared, leaving the patient in more distress than at first. Every attempt failed to reproduce the eruption. The headache continues in despite of every remedy.

Of the nature of this case I am not satisfied. That it was partly due to the arrest of the catamenia cannot be denied ; but that this arrest was the cause of the efflorescence is another question. I leave this to the savans.

CASE 4. Miss S. W., æt. 6: Nervous temperament: generally healthy. Complains of pain in the right side; breathing short and quick; pulse full; some fever. Considering it an attack of pleurisy, cupped and scarified the affected side; ordered warm poultices; gave ipecac and veratrum; ordered the asclepias. On second visit, after removing the poultice, discovered small red spots. She was greatly relieved. Attempted, by warm baths and an emetic, to produce general efflorescence. Did not succeed. Continued the asclepias—the efflorescence of the side continued five days, and the case gradually convalesced.

Many more cases have occurred within the limits of my practice; but these are a fair selection of the varieties which have been observed. Many patients I have not treated at all, and they recovered in about the same time as those who were treated. I am firmly of the belief that these cases are neither scarlatina nor rubeola.

Bateman, in his synopsis, gives the following as the symptoms of roseola. The roseola is a rose-colored efflorescence, variously figured, without wheals, or papulæ, and not contagious. He then mentions seven varieties: *R. æstiva*, *R. autumnalis*, *R. annulata*, *R. infantalis*, *R. variclosa*, *R. vaccini*, *R. miliaris*. Of *Roseola æstiva*, he says: “*Roseola æstiva* is sometimes preceded for a few days by slight febrile indisposition. It appears first on the face and neck, and, in the course of a day or two, is distributed over the rest of the body, producing a considerable degree of itching and tingling. The mode of distribution is into separate small patches, of various figure, but larger and of more irregular forms than in the measles, with numerous interstices of the natural skin. It is at first red, but soon assumes the deep roseate hue peculiar to it. The fauces are tinged with the same color, and a slight roughness of the tonsils is felt in swallowing. The rash continues vivid through the second day, after which it declines in brightness, slight specks only, of a dark red hue, remaining on the fourth day, which, together with the constitutional affection, wholly disappear on the fifth.”

The first case related appears to give the disease a contagious nature. She had visited a family where the disease was

prevalent, and in seven or eight days after she is attacked in like manner. But I should have added, whilst stating that case, that none of her sisters or brothers contracted the disease, though she was constantly with them. This case, therefore, cannot be considered as a violation of Bateman's and Willan's rule—that the disease is not contagious.

I believe all writers upon the Exanthemata freely acknowledge, that the efflorescence of Roseola is frequently partial, and that its retrocession is accompanied by headache, giddiness, disorder of stomach, &c. This remark may serve to reconcile the anomalous cases which I have related, and to sustain the opinion that all are but varieties of Roseola.

These thoughts I have hastily grouped together, and, in your own language, if what we have observed here does not accord with the experience of other Southern practitioners, we would like to be apprized of the fact.

ARTICLE XXXIII.

Case of Stabbing—Reported by W. C. MUSGROVE, M. D., of Burke county, Ga.

DEAR DOCTOR—In the August No. of the Journal I notice a communication from an old chum, which reminds me that we physicians should be true to our profession, by aiding and promoting the advancement of the science. How may this be done? By drawing upon the *note-books* of Southern physicians, many interesting cases may be brought to light, and valuable points of practice deduced therefrom.

In sending you the within case, I must acknowledge that it was in some respects unsatisfactory, as, owing to the nature of the wound, no opportunity was afforded me for a correct anatomical examination.

J. A. S., (white,) æt. 25; robust, weighs 180 lbs.; intemperate—was stabbed, on the 28th December, 1852, at 4 P. M., in the right side of the neck, with a knife, the blade $3\frac{1}{8}$ inches long, $\frac{7}{8}$ inches wide, $\frac{1}{16}$ th thick on the back; the wound was diagonally across the external jugular vein, which was divided $\frac{2}{3}$. The direction of the wound could not be ascertained, owing to extreme hemorrhage. The wound was, as before stated, on

the right side of the neck, about midway, and $1\frac{1}{4}$ inches above the clavicle. The thrust was an over-thrust, and the only resistance met with was a very thin silk cravat, which was cut through in its upper edge; the violence of the blow was such that he was thrown back several paces. He was not aware where he was struck—"crying out that his hand was cut all to pieces." The hemorrhage was excessive, spirting from him some three feet. Being present, and from the alarm of those about him not having any aid, I applied my fingers to the orifice, and in ten seconds he fell. Compression, in this manner, was applied for two hours, when a coagulum having formed, the edges of the wound were brought as near together as possible, compresses and bandages applied, morph. sulph., in $\frac{1}{2}$ gr. doses, was given every two hours until 2 grs. were taken. (He had been under alcoholic influence for several days previously.) He slept well until 3 o'clock, A. M., when he became agitated, the pulse quick, small and tremulous; owing to jactitation the bandages became displaced, and hemorrhage recurred, which, however, was soon arrested. Brandy was now given; his pulse soon reacted, became full and soft—remained quiet during the night.

Dec. 29. Assisted by my friend, Dr. Hainey, the compresses were removed, and the wound was found to be filled by a strong coagulum; the lips of the wound were brought together by two sutures, and light compresses and bandages applied. At 3 o'clock, P. M., patient was removed home, (in an ox-cart, filled with fodder, upon which a mattress had been placed,) a distance of three miles; he bore the trip well—better than I anticipated; a slight oozing from the wound. Ordered 1 oz. sal. eps. He was removed because the affray occurred at a grocery, where no accommodation could be afforded.

Dec. 30. There is some febrile action; complains of numbness of the fingers and fugitive pains in the right side; no cough; great thirst; no movement of the bowels. R. sal. eps. 1 oz.; acidulated drinks in small quantities.

Dec. 31. Cathartic has acted finely; the febrile symptoms have passed away; the pain in the chest removed; arm much less painful. The wound examined; healing finely, and the coagulum nearly absorbed.

January 3. Patient has been doing well, coagulum nearly gone, size of an ordinary bullet; previously as large as a guinea egg; some numbness of the arm. Consider him out of danger.

August 27, 1854. Patient convalesced, and has been pursuing his ordinary avocations, but an unfortunate sequent has been the result; the fingers of the right hand have become very much contracted, particularly the 2d, 3d and 4th; there is no wasting or loss of muscular substance.

The blade of knife presented to the scapula, and if my anatomical views are correct, the knife after dividing the external jugular $\frac{2}{3}$ must have touched the subclavian without penetrating, the back of the knife passing across the artery and penetrating the tissues beneath the scapula and wounding some portion of the brachial plexus, perhaps the flexor and ulnar nerve.

ARTICLE XXXIV.

Cases of Dysentery. Reported by B. R. RIVES, M. D., of Milford, Baker county, Ga.

DEAR DOCTOR—I have for some time wanted to write to you on the subject of Dysentery, as it has been, and is now prevailing in various portions of the State; but owing to the short time that I have been engaged in the business of the profession, together with the limited number of cases that have been confided to my care, I have hesitated doing so until now. However, since noticing your article on the subject, in the August No. of the Journal, I feel relieved, to some extent, of the embarrassment I would have labored under in giving my views, with the treatment I have found to be invariably successful, so far.

The disease was said to be raging to a frightful extent in the adjoining counties, and hard by our own neighborhood, for some time before it reached the bounds of my practice. The following cases are related from memory, as I took no notes at the time. They will, however, suffice to the end in view.

CASE 1. Mr. N., on the evening of the 23d of July, 1853, called on me to prescribe for his child, aged 18 months: he

stated that it had the fever and bowel complaint. I prepared him some paregoric and chalk, to control the bowels, and ordered quinine next morning to meet the fever, requesting him to let me know if it got no better.

On the evening of the 25th, I found it with high fever—pulse 150; tongue rather dry and coated, edges and tip very red; stomach distended; would rest for a few minutes on one side, and then turn rapidly over on the other; countenance marked the degree of suffering; bowels acting every five or ten minutes; character of stools would change alternately from bloody mucus, with or without fecal matter, to bloody serum, with but little or no fæces.

Treatment.—Calomel and opium; laudanum, camphor, paregoric, and chalk; tannin; chalk and gum-water as a common drink; starch and laudanum injection; warm bath and warm fomentations to the bowels, were all used in their turn, up to the night of the 26th, when the child died.

✓ CASE 2. July 25th. Mrs. B.'s child, aged 2 years, was taken in the same way as case 1st. Treatment, about the same; termination the same.

CASE 3. August 1st. In this case the writer had himself to treat. I was just convalescing from an attack of intermittent fever, when taken with dysentery. Knowing that I had been unsuccessful in the cases above reported, and that my condition was such as demanded speedy relief, I determined upon trying the saline treatment, and accordingly got a tumbler half full of cream of tartar, added water to it, and swallowed the whole at one draught. The result was, that in about two hours I had a copious serous discharge, unaccompanied with pain or tenesmus, freed from all griping—in a word, I was relieved of all the distressing feelings I had previous to taking the medicine. After suffering it to act three or four times, I found no difficulty in checking it with laudanum. I was annoyed but very little the next day, and, without taking anything else, was soon well.

After this, I treated seven other cases, in rapid succession, the same way, and with like success. It would be well, perhaps, to remark that these cases were seen at their very onset, and that they were accompanied with neither nausea nor bilious vomiting.

CASE 4. August 12th, 1854. Mr. E., aged 44 years, constitution much impaired, commenced throwing up at 9 o'clock A. M. 3 P. M. Still throwing up, and passing blood from the bowels, with much pain and tenesmus; frequent desire to go to stool; griping of the bowels; thirst urgent; tongue rather dry and red.

Treatment.—Attempted to allay the vomiting, which I partially succeeded in doing with internal remedies and mustard externally. Then gave a large dose of cream of tartar, which soon caused serous discharges and a manifest improvement in the symptoms. Ordered morphia to be given, so as to allay all pain and to keep the stomach quiet, and if his bowels should again become active, to give laudanum after each stool.

13th. All the symptoms had greatly improved; bowels had not been disturbed; passed a good night, and thought he would soon be up.

17th. In the same condition as the 12th, except that he had considerable fever. Ordered a large dose of cream of tartar, with instructions to give laudanum after it acted three times, in order to check it. Morphine and sinapism, if necessary, to quiet the stomach; and quinine (15 grains) to be taken in three portions, at intervals of three hours, commencing at sunrise tomorrow. Under this treatment he soon convalesced.

CASE 5. August 20. Was requested to see the Rev. T. C., aged 55: found him having alvine evacuations, every ten or fifteen minutes; character of discharge the same as in first case reported; some nausea; tongue heavily coated, with point and edges red; pain in bowels; tenesmus great; some fever; had been sick for several days. Ordered cream of tartar in full dose; in four hours had serous discharge, but was not entirely free from griping. After three or four serous actions the bowels were checked, as in the other cases, with laudanum. Elm water was used as a common drink. As he had great aversion to quinine, I did not prescribe any for him the next day. The case went on gradually improving; but was rather tedious, and he had on the 24th to take another dose of cream of tartar. Morphine was used all the time to allay pain. He soon convalesced after the second dose of the saline, and is now well.

In conclusion, I must say, that I firmly believe that quinine, cream of tartar, laudanum, morphine, and elm and chalk water,

are all the remedies needed in the treatment of dysentery. Mustard may be used over the stomach, and cups applied to the back of the neck when the head is affected, &c., &c.; but in most of the cases cream of tartar and quinine will do alone.

On Headache and its Varieties. By PATRICK J. MURPHY, M.D.

(Concluded from page 554.)

ACTIVE CONGESTIVE HEADACHE.—By active congestion is meant *plethora*, or too much blood within the cranium. It differs, however, widely from passive congestion. In the former, the arterial system is in fault; in the latter, the venous. In the one, there is too much blood sent to the brain; in the other, the blood moves too slowly in the veins. Arterial fullness shows power; venous distention is an evidence of obstruction or weakness.

Causes.—A general plethora, in which the brain shares; hypertrophy of the left ventricle; adhesion of the pericardium, when menstruation is ceasing.

Diagnosis.—This form of headache is easily diagnosed, either from the organic causes or the symptoms of constitutional plethora, as the full habit, the florid complexion, the incompressible pulse, the resistance to cold, the giddiness attendant on stooping the head, and the obtuseness of hearing. This habit of body is oftentimes the precursor of gout. The heart should always be examined, especially if the person has passed his fortieth year; and before the twentieth year, adhesion of the pericardium from rheumatism is more frequent than is usually believed. The pain of the head is trifling, unless when the heart is in fault.

Treatment is almost obvious, but it is very difficult to change a plethoric constitution. We should recommend moderation in diet, especially in animal food; abstinence from alcoholic drinks, and from any other liquid; the lessening the hours of sleep; to lie with the head high; to avoid much stooping, for a temporary apoplexy is not rare in those who stoop and exert themselves to pull on their boots; not to wear any thing tight round the neck, and to exercise as much as possible in the open air.

If there be a persistent giddiness, ten or twelve ounces of blood may be taken from the nape of the neck by cupping, or from the arm. If an issue or seton be deemed advisable it will be better to insert it in the left arm than in that most inconvenient part the nape of the neck. The tinctures of *digitalis* or

or hyoscyamus will be found useful, also pills of ipecacuanha, or nauseating doses of tartar emetic. Dr. Cheyne's favorite remedy was the pulvis antimonialis.

The *sick headache*, to which females are such martyrs when menstruation is ceasing, comes under this denomination of headache. It comes on at their usual period, but the menses either cease flowing, or escape very scantily; it is very distressing, and attended with an inclination to vomit, hence the expressive term sick headache. The face is flushed, the appetite lost, and the temper disturbed. It will be found both a preventive and cure to take blood, for several periods, either by lancet or otherwise, some days previous to the attack; to keep the bowels very lax, especially with the acetous extract of colchicum and saline purgatives; setons and issues are very useful when inserted in the lower extremities; the diet must be moderate; the feet kept warm, and exercise prescribed. During the attack, the feet placed in very hot water, and sinapisms to the lumbar region give great relief. Vomiting, if spontaneous, sometimes relieves, but an emetic often fails. In treating females, no matter what the disease may be, it should never be forgotten that it is exasperated, and a headache sometimes added a few days previous to menstruation.

THE NEURALGIC HEADACHE.—Neuralgic headache is synonymous with those headaches described by some old authors as hemicrania, by others as clavus hystericus, and by Dr. Graves as hysterical congestion. It is *peculiar* to females, and to females during a certain period of their existence only—from puberty until the final cessation of the menstrual secretion. Dr. Graves gives a graphic description of the symptoms and of the injurious effects of the usual routine treatment. He calls it hysterical congestion; but he seems not to have understood its true pathology. There is no doubt of its being hysterical, but there is no congestion, for the seat of the pain is in one of the nerves of the scalp, which can be easily proved by a slight examination, and it is therefore an external headache. The error may have arisen from his having met with cases where this headache was in combination with the anæmic headache. The proper name which should be bestowed on this headache, in order to facilitate the diagnosis, is spinal irritation of the sub-occipital nerve. Spinal irritation is beginning to be well understood in this country; we are indebted to a French physician, M. Valleix, for the discovery. Since then many other disorders, such as irritable mammæ, pleurodyne, and neuralgic headache, are discovered to originate in functional derangement of the spinal cord; and I believe whoever

will carefully compare these disorders with cases related by Dr. Tilt must come to the conclusion that they are nothing more than symptoms of subacute ovaritis. They are hysterical disorders, and *hysteria is subacute ovaritis*, which displays its phenomena on the sensitive and motive nerves of the spinal column.

On comparing the neuralgic headache with the phenomena of spinal irritation in other parts, we find how exactly they coincide. Like spinal irritation, it is a form of hysteria, and therefore peculiar to females. It is not only peculiar to females, but attacks them only during the menstruating period of their existence—that is, from about the thirteenth to the fiftieth year. It is exacerbated just previous to menstruation, makes its first attack on the left side, and rarely passes over to the right side.

Cause.—As this form of headache is peculiar to the female sex, it must therefore have its origin in some organ peculiar to them; and as it is felt during a certain period of existence only, the organ must have the performance of its functions limited to that period. As there is no organ by which these two facts are explicable, unless the ovarium, it is not unphilosophical to conclude that the disorder proceeds from the ovarium. There is certainly also the uterus, but the functions of this viscus cease on the removal of the ovaria. We daily meet with the uterus inflamed, ulcerated from cancer or cauliflower excrescences, distended by hydatids or pregnancy, producing moles and polypi, but none of the phenomena of spinal irritation are present. In the married female who bears children regularly it is scarcely ever known. Before the commencement of menstruation, or after its termination, it is equally rare.* What is the state of the ovarium I do not pretend to affirm. If inflammation, yet it has often yielded to tonics; it may depend on moral causes, but such explanation has never satisfied me. An accumulation of fæces in the rectum has appeared to me as occasionally the source of irritation; in a few cases I think it was traceable to ascarides in the rectum. We witness the action of cold in paralysing the trunk of a motor nerve, the portio dura, as it escapes from its cranial foramen, but cold cannot be a cause of this headache, otherwise why should not the male sex equally suffer.

Occasionally spinal irritation, in other parts, has been observed earlier in life, but I have not met with the headache;

* While writing the above, I referred to Dr. Tilt's work on Diseases of Females, first edition, and in page 58, he gives the valuable fact, that he found the right ovary affected in only five out of seventeen cases. Now, it might be worth inquiry to ascertain whether the left had not been previously affected, but that the irritation was transferred to the right, as we see in ophthalmia occasionally.

and, as the headache has occurred some years before the appearance of the menses, so I believe it possible it may arise a few years after their total cessation. The headache resembles spinal irritation, also, in a curious and hitherto unexplained phenomenon: *commencing* on the left half of the body, we occasionally meet with it also on the other side; but I have never discovered that it began there, nor is it ever restricted solely to that side. When both sides are attacked they are unequally so, the left being by far the more painful. As another proof of its being spinal irritation, if further proof be necessary, we find it under two distinct forms, and these forms are easily distinguished by the nature and extent of the pain. In the one it is confined to the exact track of the sub-occipital nerve, it is lancinating or shooting, intermitting, and chiefly felt at its determination in the integuments of the temporal region; when severe in this spot it is the *clavus hystericus*. When the whole course of the nerve and its branches are implicated the entire left side of the scalp is very tender, sometimes exquisitely so; this is the hemicrania. It is singular how much this disease is confined to the left side of the head; we find such to be the fact in ninety cases out of a hundred. It seldom reaches the aggravated form of *clavus hystericus* without being accompanied with other well-known hysterical symptoms which, of course, facilitate the diagnosis.

Diagnosis.—This headache attacks females exclusively. I have never heard or read of men suffering from this kind of headache. It is only during the menstruating period of life that even females are liable. The pain is referred to the left side of the head; it is worse on the approach of the menstrual flow; it is found on the track of the sub-occipital nerve. The course of this nerve is well known; it accompanies the sub-occipital artery, emerging from the spinal canal; it passes along the back of the head, midway between the mastoid process and the mesial line, sending branches to the integuments which cover the parietal protuberance, and terminating in the temporal region. Its course from its exit to its termination, can oftentimes be accurately ascertained, from the pain induced by pressing upon it. Although the head suffers, pressure may not always produce the pain, for it is intermitting. In general, however, pain may be thus detected in one of three places; on the left side of the neck, where the head and vertebræ join, at the parietal protuberance, or in the temporal region; when concentrated in the last spot it is the well-known *clavus*. It is sometimes painful in all three, and, sometimes in its whole track. It is, however, rare that the tenderness is absent in the occipital region. The parts suffer more when

pinched than when pressed. When the branches as well as trunk suffer, we then have hemicrania—a most painful form, less intermitting than the other, and preventing the unfortunate girl from lying on the affected side. It is more commonly met in the unmarried female, from the twenty-second to the thirty-fifth year, but the married females who are childless do not escape.

This headache is chronic, intermitting, may continue for days, weeks, or months, then subside, and return after the lapse of months, or even years. A first attack is seldom felt before the twentieth year, nor after the thirty-fifth. The pain is generally of a shooting kind, darting from the neck towards the temple, and never towards the neck, by which it is easily distinguished from odontalgic pain. Neuralgia of the left mamma, (irritable breast,) or of the seventh or eighth intercostal, (pleurodyne,) frequently co-exists. It is sometimes found in combination with the anæmic, but more rarely with the congestive headache. From caries of the body of a vertebra it is easily distinguished by the pain being superficial, being confined to the left side of the spine, by its not becoming worse when the head is flexed on the chest, nor by jumping, nor by pressing the head against the spinal column.

This neuralgic pain sometimes accompanies the rotated spine. It is singular how often toothache is mistaken for headache, especially for this form. In both, the pain is described as shooting in the course of the nerves, but in toothache the pain shoots towards the neck and ear, leaves no tenderness of scalp, never goes so high as the parietal protuberance, and is more correctly discovered by learning that a paroxysm is brought on by food, sometimes when warm, at other times when cold.

Treatment.—If the disease be not complicated, we can promise relief. The bowels should be kept open by regulated diet, and by aperients, such as castor oil, olive oil, lenitive electuary, powdered rhubarb, soluble tartar, or the compound rhubarb pill. If the bowels are obstinate, an enema of a pint of cold water daily answers the double purpose of removing the contents which may irritate the ovary, and as a local application to the organ chiefly in fault. The cold hip-bath is a valuable remedy when the constitution is vigorous, but all these things are inferior to sea-bathing. Stimulants should be abstained from, employment should be found for mind or body, but physical efforts are preferable. The sedentary position required by the needle, especially in solitude, is very injurious. A sinapism over the exit of the nerve gives great temporary relief; a vesicating plaster of cantharides is better, but it oftentimes

leaves a mark, and therefore, on account of sex, age and position in life, may be objectionable. A croton-oil liniment, made with one drachm of oil and one ounce of camphorated tincture of opium, and rubbed until pustules appear, is preferable, as it leaves no permanent blemish. The belladonna plaster, mixed with powdered opium, or a liniment of extract of belladonna, rubbed with mucilage, are useful and unobjectionable remedies. Speedy relief is occasionally afforded by veratrine or aconitine ointment, made with from four to six grains to half an ounce of spermaceti ointment. The finger used in rubbing should have a piece of bladder interposed.

One ounce of tincture of aconite, with seven ounces of rose-water, is a safer remedy to trust to inexperienced hands than the veratria. The internal medicines are not so easily chosen. Tonics are frequently required, and they may be combined with anti-hysterical remedies. The disulphate of quinine may be exhibited in a strong infusion of valerian, compound iron pill, with assafoetida in large doses, is very beneficial. If there be irritability of the stomach co-existing with profuse menstruation and leucorrhœa, pills of valerianate of zinc, half a grain three times a day, with one drop of creosote, answer many intentions. If there be much debility, the sulphate of iron may be combined with infusion of valerian and ammonia, or the ammoniated tincture of valerian may be prescribed. The pain is sometimes so acute that some relief is quickly demanded, and half a grain of morphine will lessen the pain for a while until other remedies have time to act. For the leucorrhœa one drachm of acetate of zinc to one pound of distilled water is useful as a lotion. But we are sometimes perplexed, for the tonic treatment is not the best for a full plethoric female; leeching or even general bleeding is required, but the cases are rare which require general bleeding.

If the patient be not very weak, and there is much leucorrhœa and menorrhagia, the treatment laid down by Dr. Tilt for sub-acute ovaritis should be adopted. He leeches in the menstrual interval, and then blisters the iliac regions; but as his work is universally read, the treatment is well known. Sea-bathing, when practicable, should never be omitted.—[*London Lancet*.

On the Treatment of Cancer by Congelation; and Local Anæsthesia from Cold. By JAMES ARNOTT, M. D.

(Continued from page 546.)

It has unfortunately resulted from the circumstance of extreme cold having been recommended as a mode of producing insensibility in surgical operations, as well as a remedy of great

antiphlogistic and anodyne powers, that the sphere of its action in the latter capacity has been reckoned much more limited than it ought to have been. It is true, that *complete* insensibility cannot be produced by the common frigorific mixture, and without the aid of pressure, or the arrest of the circulation for a time, beyond a very small depth from the surface; but its *remedial* efficacy will extend as deep, at least, as the depression of temperature produced, and this may be much more extensive than the insensibility. Consequently, when in a recent criticism of my publication on the impropriety of using the dangerous expedient of chloroform in cases where cold might be safely substituted, and with other advantages in addition to its anæsthetic power, the reviewer would limit the remedial action of congelation to erythema, boils, and other cutaneous inflammations, he shows that he has not reflected on this circumstance; and that he is not better acquainted with the effects connected with the remedial use of severe cold than he is with the important fact in connexion with its anæsthetic use, that in at least three-fourths of the reported 50 cases of sudden death from chloroform, (and probably in as large a number of the 150 unreported cases,) complete anæsthesia might have been safely produced by it.* If cold 60° or 70° above zero Fahr. is employed with well-merited confidence in diseases of the joints, in gun-shot and other severe wounds, in inflammation of the brain or its membranes, in ophthalmia, in phlegmonous erysipelas, and, in fact, in all external inflammations, surely it is not unphilosophical to suppose (to say nothing of the results of ac-

* *Medico-Chirurgical and British and Foreign Review*, for April, 1854. There are other statements and opinions in this notice of my pamphlet equally objectionable which it would be irrelevant to mention. But if the reviewer's admission, that congelation is "a very valuable remedial measure" in the disease he mentions, and that the pointing it out as a substitute for chloroform in certain minor operations is "conferring a great benefit on operative surgery"—if these admissions are generally acted upon, I cannot doubt that the sphere of its utility will soon be extended; that many dangerous diseases will be promptly cured by it; many formidable inflammations prevented, and many lives saved that would be otherwise sacrificed by chloroform. Before concluding these remarks on cold as a local anæsthetic, I may be permitted to refer to some experiments connected with this subject lately made in the Hotel Dieu, of Paris, and recorded in the *Gazette des Hopitaux* of the 18th ult. Cold in these was produced by the evaporation of ether. Although it matters little how the principle is carried into operation, if carried out effectually, I think frigorific mixtures, appropriately modified, will be found the best plan, and certainly the least troublesome. Amongst other devices that might be adopted, it has occurred to me that a continued jet of air, cooled to the requisite degree, might be projected on the part from a gasometer; or the air might be cooled by passing through small tubes of sufficient length immersed in a frigorific, or, through a tube containing solid carbonic acid, connected with a gasometer of French bellows. The probable benefit from intense cold, in certain important cases where the ordinary means of applying it cannot be employed, as in inflammation of the larynx, would in the opinion of a conscientious practitioner, render the trouble and expense of such a device no legitimate objection.

tual experience) that a cold of zero would produce a greater amount of benefit; and, to return to the subject of this paper, if much benefit in cases of cancer has been produced by common refrigerating lotions, much more might have been expected from pushing farther this therapeutical principle. The effect of congelation is merely the fulfilment of the surgeon's intention when he applies cold in the common modes, but he has hitherto never attained his object because he has always (ever since the origin of the medical art) been under the erroneous notion that a severe degree of cold applied, for however short a period, would endanger the vitality of the parts subjected to it. The mistake has originated from making no distinction between short and long applications of extreme cold.

Every one knows that long-continued congelation will destroy the vitality of a part, and M. Velpeau has used such congelation with this view in certain cases of cancer. In his recently published work on Diseases of the Breast, he speaks approvingly of this practice;* but though whatever is approved by a surgeon of his great and justly acquired celebrity is entitled to every consideration, my own experience convinces me that the minor effects of *short* congelation, produced without the slightest hazard to the vitality of the skin, would, under ordinary circumstances, and if properly carried out, be perfectly sufficient. It is true that in certain cases, where the only alternative would be the use of the knife or caustic, such a proceeding might be preferable to either; but cases of this description must be of rare occurrence.

It is almost unnecessary to mention that M. Velpeau makes a marked distinction between long and short continued congelation. In enumerating the various operations in which he has employed the latter as a local anæsthetic, he does not deem it necessary even to allude to the perfect safety, as respects the vitality of the skin, with which it may be employed for such purposes.

In the following case of scirrhus cancer of the breast, the tumour was not only larger, but it was more deeply seated in the breast than in that related in the former number of the journal, and consequently there has been more difficulty in causing the remedial influence of congelation to pervade it. It constitutes, however, a better example of the mere arrest of the disease, for I have little doubt that had the other case continued under my own immediate care, all trace of cancer would have soon disappeared; and the case now to be related would, I think, have made quicker progress to recovery had the treatment been modified.

* *Maladies de Sein* (p. 677), par A. Velpeau, Membre de l'Institut, &c.

It was early in May of last year that I was consulted on this case. The patient had previously left her residence in Kent to ask the opinion of Mr. Lawrence, who not only agreed with her usual medical attendant that the tumour in the breast was cancer, but said that unless she immediately submitted to its excision, it might prove fatal within six months. She preferred the treatment by congelation. On examining the breast, I found a hard, flattened, hemispherical swelling, of about three inches diameter, knotted on its surface, contiguous with, but not adhering to the skin, excepting at the nipple, which was retracted and slightly ulcerated. There was at times a lancinating pain. The disease had existed more than two years, and although the usual routine had been had recourse to, no kind of treatment had appeared to be of any service. The disease gradually but steadily progressed.

The frigorific mixture of ice and salt was applied for about four minutes, the usual precautions being taken to prevent the smarting that would otherwise take place on the return of sensibility to the parts which had been congealed. A similar application was repeated about every month by her medical attendant in the country; and after about six such applications I again received a visit. The tumour appeared to be smaller than when I first saw it, the decrease being chiefly in its thickness; and in other respects there was great improvement. She continued the same plan of treatment, and the principal results are recorded in the following extracts from a letter which I have lately received from her, dated April 6th:—

The substance of this letter is, that the tumour continues of nearly the same dimensions; though it appears to be a little longer, it is less thick. She has not “for the last four months known what a bad night is, being always free from pain,” though during the day there is, “at times, three or four, or perhaps more, transient pains, while, at other times, she passes some days without any pain.” Her “general health is very good, and is kept good by regular exercise in the open air.” As I had expressed the opinion that she should make longer intervals between the applications than a month, in order to ascertain whether the tumour was not now merely a lifeless mass, like a bullet in the flesh, which might give occasional uneasiness, particularly when the mind was intent on the subject, she states, in reply—“Five weeks have intervened between the last applications; I have these renewed, because, while I feel there is life in the tumour, I think they are necessary.” She concludes a letter written a month previously (March 4th) by the expression of a wish “that every sufferer

from the same disease were as happily delivered from the effects of a cancer as she has been by this remedy."

As in almost every case which I have treated by congelation a certain degree of hardness and swelling remained after the disappearance of other symptoms, it is important to investigate the cause of this. On the supposition that cancer is essentially a congeries of living cells, we may reasonably think that the absorption of these, after their vitality has been destroyed, must be slow, if it takes place at all; and perhaps the irritation that has induced patients to apply for the frigorific application afresh, may have proceeded from the presence of this inert mass of dead cancer-cells. I should be sorry, however, to think that the absorption of these never takes place, because in a voluminous congeries of cells it were difficult to understand how the cold could reach the inner surface of the mass without the absorption of the more superficial layers having previously taken place after the extinction of the life of the cells constituting them; unless, indeed, the layers of dead cells were to form so good a conductor as scarcely to resist its passage. But in their living state, the tumour in which they are interspersed is so dense and so little intermixed with blood-vessels as to form a substance easily permeable by cold—as easily, perhaps, as cystic tumours are, the fluid contents of which I have congealed in applying cold to them, as an anæsthetic, previous to their excision.

If it be objected to the cases which I have now related that they do not furnish satisfactory evidence that cancer is completely curable by cold, they show, at least, that it will produce much more benefit in this disease than any other remedy. If an unequivocal cancerous tumour subjected to this treatment, instead of increasing in size, gradually decreases, while the patient becomes free from pain (excepting such uneasiness as a mass of dead cancer-cells might excite), and the general health improves,—if no glandular enlargement takes place in the armpit, or extension of the disease to any other part appears, and if this condition continues without change for a long period, it is surely a very satisfactory change in the patient's condition. I question much if it be possible entirely to remove the hardness in the majority of such cases, but this hardness is no proof of the presence of malignant affection, and no source of inconvenience to the patient. What other remedy yet employed in cancer will effect as much? Too many of the measures employed as remedies only precipitate the unfortunate patient's fate.

Before concluding this paper, I must advert to a statement which appeared some time ago in a medical journal, that a pa-

tient had been seriously injured by a prolonged application of ice to her cancerous breast of upwards of twenty-four hours.

As every one has not yet learned the essential difference between the application of ice and congelation in disease, it may be advisable now briefly to point it out; and as the subduing of the inflammation usually accompanying cancer is one of the objects in using either of these methods of treatment, it may simplify the matter to speak of this difference as respects their use in preventing or removing the inflammation after wounds or other mechanical injuries. Ice, or a temperature of 32° Fahr., acts as minor degrees of cold do, in lessening the increased vascular action which accompanies (if it does not constitute the chief element of) the morbid condition called inflammation; but congelation, by causing a temporary suspension of the circulation and sensibility of a part, does this and a great deal more. It effects such a change in the vital actions of the part, perhaps by removing for a time the tonicity of the small arteries, as not only immediately to arrest inflammation, but to render the part unsusceptible of this condition for some time afterwards. If this suspension of vitality be of short duration, there is not the least hazard of the part being permanently injured, and when congelation is purposely effected by a powerful frigorific, its duration and extent can be exactly limited. But if it should happen that owing to a debilitated state of the body, or other circumstances, a prolonged application of ice should at length congeal the part, as the surgeon may not be aware of this unintended effect until after it has lasted for a long time, (as has happened in applying ice to gunshot wounds and in strangulated hernia,) much injury may be the consequence. Fortunately, the aching usually caused by a continued application of ice is a preventive of such mischief, and another reason why it has been so little employed in surgery.

P. S.—Since the above article was forwarded to the office of *THE LANCET*, on the 10th ult., Dr. Hardy has published a proposal similar to that contained in the note to the first paragraph, in the *Dublin Medical Press* of the 19th; but a stream of artificially cooled air was suggested as a substitute for other refrigerating means in the introduction to my collected essays on Congelation, published last year. Within this short period, likewise, Dr. Snow, who I believe is reckoned an authority on the subject of general anæsthesia, and who is much employed as a chloroformer, has, naturally enough, thought fit to attack its rival—local anæsthesia from cold—in a paper read before the Medical Society of London. Notwithstanding the fact, not unknown to his hearers, that intense cold has already been

extensively employed for this purpose by some of the most eminent surgeons of the day, he indulges them with the recital of some hypothetical notions upon its applicability! When Dr. Snow spoke of the great pain produced by a frigorific mixture applied to his hand, he must have forgotten that both hands and feet often become benumbed in very cold weather without any preceding pain. Complete anæsthesia to the small extent he speaks of, may be produced by cold, properly applied, with scarcely the slightest uneasy sensation; and when the circulation is quite arrested by cold, the smarting or tingling does not exceed that produced by mustard, and is never complained of by the patient. It is much less disagreeable to him than the sense of suffocation which accompanies, and the headache and sickness that follow, the exhibition of chloroform; to say nothing of his dread of losing consciousness and life.

I may probably on some future occasion, notice certain other statements in Dr. Snow's paper; but I cannot advert to them at all without expressing a feeling of surprise, that a practitioner, who has himself experienced all the horrors attendant on causing death by chloroform, should still talk of employing it on the most trifling occasions. The case of death from chloroform which has just occurred in France, and in the hands of so careful a surgeon as M. Richard, will, it may be hoped, be amongst the last; for surely a recourse to chloroform in preference to cold must very soon be confined to the comparatively small number of operations which involve the incision of deep-seated and sensitive parts; and even in these (as I have explained in my late pamphlet on the subject) a combination of cold with chloroform would render the exhibition of a large dose of the latter unnecessary, while it would very much promote the healing of the wound.—[*Ibid.*]

On the Tongue as a means of Diagnosis. By THOS. NEWHAM, Esq., M.R.C.S.E., L.S.A.

Every practitioner is in the habit of looking at the tongue in all cases of internal, and in most cases of external, disease. From a glance at its general appearance, he forms an idea of the amount of irritation which may exist in the digestive apparatus, large or small intestines. In a surgical case, also, the tongue informs him what may be the amount of constitutional irritation present. I believe, however, that the tongue is an organ which requires looking into much more minutely than is commonly done, that certain portions of it may be allotted to particular diseases, and that our remedies may consequently be given with greater precision. In making this assertion,

I am advancing no new theory, but merely supporting an old one, as well as a neglected one, proposed by Dr. Ridge. I read his work, tested it to the best of my ability, and have arrived at the following conclusions :

1. The tongue points out to us the particular organ affected in all chylo-poietic derangements.

2. It indicates the seat of disease in the respiratory apparatus.

3. The tongue gives unmistakeable appearances in affections of the circulation and media thereof.

4. It is a most valuable guide in fevers.

Many of the readers of the *Lancet* may not have seen the book I allude to, and therefore, without some little explanation, will scarcely understand some of the terms used in this communication. Dr. Ridge divides the tongue longitudinally into three parts: central laterals, small portions on either side the raphé; laterals, to the outer side of the foregoing; and edges. He then divides these, by means of transverse lines, into—

Anterior,	} fourths,
Second,	
Central,	
Posterior,	

giving a part of the anterior fourth of the central laterals to the "tip" and the junction of the anterior and second fourth, to the "oval."

The central laterals show the respiratory organs.

The laterals, the chylopoietic viscera.

Edges, the brain.

The tip shows the state of the large intestines.

The oval is given to the pleura.

The heart seems to influence the whole of the tongue.

In support of my first conclusion, I would wish to call attention to any ordinary case of dyspepsia, with sluggish liver. Here the tongue may almost always be found covered with a thin, white film, the whole length of the laterals, these portions being thrown prominently forward, and most clearly defined; and in nearly all those cases where sickness and pyrosis have been present, the posterior and central fourths have been most thickly coated. It sometimes occurs in this affection that the tongue is slightly coated over its whole surface; but on desiring the patient to protrude it forcibly, the posterior fourth of the laterals is seen thickly furred. As the affection extends to the liver and duodenum, the laterals become coated their whole length; and on the application of remedies, embracing the stomach and liver, the disease quickly yields. If the posterior and central fourths are alone affected, our treatment must be

confined to the stomach alone, and, I believe, with a certainty of success. In one instance of stricture of the œsophagus, near the cardiac orifice of the stomach, I observed the posterior fourth of the laterals to be thickly coated, and as the disease advanced, doubtless affecting the extremity of the stomach, the furring progressed anteriorly. Again: in a case of malignant disease of the pylorus, which rapidly extended to the duodenum, and formed a mass of disease easily felt externally, the laterals were the only parts of the tongue coated, the other portions of the organ being perfectly clean and glassy. I could produce many other instances of derangement of the primæ viæ which my note-book informs me invariably presented the same appearances, but I will not occupy the pages of the *Lancet* with "twice-told tales."

Secondly.—The appearance of the tongue in cases of phthisis (which have come under my observation) has been varied, not in the position, but in the degree of coating. We are to remember that the central laterals are the portions of the tongue given to all thoracic disorders, as well as to those of the larynx and trachea, and it is to these parts we must look for our indications of disease. Accordingly, we shall find them covered with fur thrown up, as it were, by injection of the vessels, and clearly defined. I am not now referring to pneumonia and pleuritis, (neither of which diseases I have seen during the last two years,) but to cases of tubercular deposit, and ultimate softening, with all its attendant symptoms. With regard to the *degree* of coating, I have found, that although well-marked as to position, it has been in some of the recent cases less than in more advanced ones. I will quote a case, illustrating in a remarkable manner that the diseases of the air-passages, as well as of the substance of the lungs, are indicated by the state of the central laterals.

"A patient of broken-down constitution was afflicted with secondary symptoms—ulceration of the fauces and soft palate among the number. After the usual remedies had been applied, and persisted in for some time, the parts became sound, and the case progressed favorably, when suddenly great difficulty of breathing came on, approaching to strangulation, and rendering it a matter of doubt whether the operation of tracheotomy should not be performed. The symptoms were relieved by anti-spasmodics and sedatives in powerful doses. The attacks recurred at intervals of fourteen hours during three days and were subdued by the same treatment. On the sixth day, the disease was apparently checked, but only for a short time, for within a few days unmistakable symptoms of gangrene of the lungs made their appearance, and rapidly carried off the

patient. I watched this case narrowly, and I found that immediately the difficulty of breathing came on then did the posterior and middle fourths of the central laterals become coated, which coating disappeared on the cessation of the urgent symptoms; but after the lungs had been attacked, a thick creamy deposit covered the whole of the central laterals as far forward as the tip."

Thirdly.—In all cases of chlorosis, where the system is deprived of proper nutrition, the tongue assumed a flabby aspect; it is tremulous, and its papillæ, particularly those at the tip and sides of the tongue, assume a fringe-like appearance, but are pale, and almost œdematous. In these cases there is a loud aortic bruit, with the bruit de diable. Upon the application of the proper remedies in such cases, the papillæ first became very slightly coloured, then contract into their normal dimensions, and, lastly, the whole tongue assumes a healthier aspect some time before the struggle of the patient returns.

In some instances of hypertrophy, with and without dilatation the tongue becomes covered with sulci, more particularly on either side of the raphé. It is also drier than usual, thickened, and appearing as if it laboured under some congestive disease. I have had no opportunity of seeing a case of aneurism lately, but I have frequently searched for and found disease of the heart after observing these deep fissures of the tongue.

Fourthly.—A large number of cases of fever occurred in this city last autumn. It was always a simple type at the onset presenting all the usual symptoms of derangement of the primæ viæ with rapid pulse, hot skin, &c. After the initiative measure of purging and an emetic, I found the tongue remaining, if possible more coated than before; and in some cases repeated the purge and emetic given, at the same time, saline aperients and diaphoretics. After four or five days the coating of the tongue became dry, but did not disappear, and I was compelled to have recourse to stimulants, which performed their task most satisfactorily, for the tongue became moist, and in twenty-four hours, was nearly clean. In all my future cases I pursue this course. I gave, first, an emetic, then a purge, and waited until the second day; I then examined the tongue, and if I found the tip (which is the part given to the large intestines) in a clean state, in ever so small an extent, I gave ammonia and bark, and had the pleasure of seeing my patients recover more rapidly than I ever remember under any other plan of treatment.

In these cases I ought perhaps to have waited until the tongue gave evidence of the small intestines having recovered themselves. I did not do so, and never lost a case afterwards.

It is not only in fevers that we must study the appearance of the tip of the tongue. It is a most valuable guide in constipation of the bowels. It is then slightly furred, and covered with papillæ, which are so injected as to appear some distance above the fur. In these cases violent purges only render matters worse, and it is only by gentle and long-continued medicines that we shall restore our patient.

In affections of the small intestines we all are accustomed to the appearance of the tongue; but on looking at the anterior fourth of the laterals, by its injection or non-injection, by its ulceration or non-ulceration, shall we detect the true state of the mucous membrane of the small intestines as far as the cœcum.

In conclusion, I beg to say that with respect to the brain my observations have been so limited that I have not ventured to deduct any inferences, but that whatever I have now advanced I have repeatedly proved. I have not given any anatomical proofs of the intimate connexion of the several divisions of the tongue with the parts they represent, as I consider that would be trespassing on Dr. Ridge's province, and I trust that my professional brethren will derive as much pleasure and profit from his book as I have done; or, rather, that it may encourage abler heads than mine to investigate his *theories* for themselves; and, in the end, to impart them to the profession as *facts*, as both he and I believe them to be.—[*Ib.*]

Source of Hemorrhage in partial separation of the Placenta.

Dr. Mackenzie, in a paper read before the Medical Society of London, Dec. 17th, 1853, pointed out that three different opinions prevailed at the present day respecting the anatomical source of hemorrhage in cases of partial separation of the placenta; the first affirming that it was principally or wholly uterine; the second, that it was principally or wholly placental; the third, that it was both uterine and placental. He further directed attention to the fact, that puerperal uterine hemorrhage, whether occurring in connection with partial or entire separation of the placenta, was generally considered to be principally venous, and he quoted passages from the writings of Drs. Simpson, Radford, Murphy, and Lee, in support of this statement. On reflecting upon these circumstances, he was led to believe that some light might be thrown upon the question by ascertaining experimentally the source of hemorrhage in an animal whose placenta, like that of the human female, was both decidual and foetal. A pregnant bitch was accordingly

obtained, which had nearly completed the full period of gestation; the uterus was opened, several placenta were detached, and the following observations made: 1. On separating each placenta, it was found that blood flowed freely and continuously from the denuded uterine surface, increasing with the detachment, while none escaped from the detached portion of the placenta. 2. That the blood which escaped from the uterus was distinctly arterial. 3. On rupturing a placenta while still partially adherent to the uterus, that a small quantity of dark venous blood escaped from the torn part. Thus it would appear that in the canine species, the source of hemorrhage in cases in which the placenta is partially detached is exclusively the denuded uterine surface so long as the placenta is entire, that the hemorrhage is of an arterial character, and that a small quantity of dark venous blood escapes from the placenta on being lacerated while still partially adherent to the uterus. The results of this experiment were not, however, deemed conclusive as to the source of hemorrhage in cases of partial separation of the placenta in the human female, on account of the different distribution of the veins in the maternal portion of the canine and human placenta respectively. Their anatomical peculiarities were briefly pointed out; and in the early part of April, 1853, the author had an opportunity of performing a more decisive experiment with the assistance of Dr. Sharpey. In this, the hypogastric arteries of the uterus of a woman who had died of internal hemorrhage during labour, and in whom the placenta was partially adherent, were injected with defibrinated blood, and the organ, as well as the vessels from whence the blood escaped, were carefully noted. It appeared, on injecting the hypogastric artery, that blood escaped freely from the torn utero-placental arteries on the surface of the uterus; that none escaped from the torn uterine veins, or from the detached portion of the placenta; and it was ascertained, that the blood was not injected with greater force than that of the heart acting under ordinary circumstances. The opposite hypogastric artery was next injected, with the following results: The blood escaped freely from the torn utero-placental arteries on the surface of the uterus; none escaped from the torn utero-placental veins; while, in this case, a small quantity escaped from the detached portion of the placenta contiguous to that which was still adherent. Repeated injections led to no other results; while it was particularly remarked, that the torn utero-placental arteries on the surface of the uterus were free from any plugging previously to being injected. Two things were thus clearly shown from this experiment: 1st. The readiness with which blood escaped from the torn utero-pla-

cental arteries when the hypogastrics were injected ; and, 2dly. That these arteries had not been plugged by any coagula during life. Such facts, coupled with the results of the previously related experiment, and taken in connection with various clinical circumstances, appeared to the author to afford strong grounds for the belief that the principal source of hemorrhage in cases of partial separation of the placenta was arterial rather than venous, and uterine rather than placental ; and he proceeded to consider the data upon which the opposite opinion had been affirmed. In doing so he quoted the following passage from Dr. Simpson's writings, as containing a reference to the several grounds upon which the occurrence of arterial hemorrhage has been denied in cases of partial separation of the placenta. "Uterine hemorrhage, after separation of the placenta," says Dr. Simpson, "in any of the stages of labour is not arterial in its character, because the uteroplacental arteries are so long and slender as to become readily closed ; 1st, by the tonicity of their coats ; 2d, by contraction of the uterine fibres upon them ; and 3d, principally by the changes in their tissues produced by the mechanical rupture of their coats, torn arteries being little, if at all, liable to bleed, and the placenta being separated by a true process of avulsion." With reference to the first statement, that uterine hemorrhage, after separation of the placenta in any of the stages of labor, is not arterial in its character, the author observed that, so far as he was aware, it was one which was not only unsupported by any evidence, but directly at variance with many observations which he and other medical men had made. He referred to cases in which he had distinctly observed that hemorrhage occurring between the birth of the child and the complete separation of the placenta was of an arterial character ; and he referred to the fact, that the blood which escaped from the uterus of the bitch when the placenta was detached was of a bright arterial colour. With regard to the second point affirmed, that arterial hemorrhage from the uterus is prevented by the tonicity of the utero-placental arteries, he observed, that, while he believed this to be generally the case in a state of health and tranquility of the circulation, that, under other circumstances, it might be doubted whether such was the fact. The third doctrine affirmed, that hemorrhage from the uteroplacental* arteries is prevented by contraction of the uterine fibres upon these vessels as they pass through and amid the uterine structure, was in the author's opinion, completely invalidated by the well-known fact, that there is often no direct relation between the degree of uterine contraction and the degree or tendency to uterine hemorrhage ; and he further

appealed to the two following series of facts as being opposed to its correctness: 1st. That in several instances the placenta has been spontaneously or artificially separated from the uterus before the birth of the child, and, consequently, under circumstances in which contraction of the uterus could not take place without any hemorrhage supervening; and 2dly, that when it has been attached to the os and cervix uteri its separation has been effected, in many cases, without any particular hemorrhage resulting, although it is affirmed by some anatomists that there are few or no contracting fibres in the structure of the os and cervix uteri. The last proposition affirmed, that hemorrhage from the utero-placental arteries is prevented by the changes in their tissues produced by the mechanical rupture of their coats, torn arteries being little or at all liable to bleed; and the placenta being separated by a true process of avulsion, was completely negatived by the author's experiments upon the pregnant bitch, for on detaching the placenta from the uterus, and thereby lacerating or tearing through the utero-placental arteries, arterial hemorrhage was actually observed to follow; that is to say, having separated the placenta by a true process of avulsion, and thereby having torn across the utero-placental arteries, it was demonstrated that such proceeding was not productive of those changes in their torn coats which are assumed to follow such operation, and by which it is alleged, arterial hemorrhage is prevented. Upon the whole, it appeared that two things were certain; first, that no necessary relation existed between the degree of hemorrhage, and the degree of separation of the placenta; or, secondly, between the degree of hemorrhage, and the degree of contraction of the uterus: uterine hemorrhage having been variously moderate or excessive under similar degrees of separation of the placenta, and similarly moderate or excessive under the opposite conditions of relaxation and contraction of the uterus. Could it, then, be doubted, that the absence or disposition to uterine hemorrhage depended, in many cases, upon other causes than the anatomical connection of the placenta with the uterus on the one hand, or the contractile mechanism of this organ on the other? Or, further, that these were to be sought for in the occurrence of arterial hemorrhage, and the varying conditions of the utero-placental arteries, as modified by the general condition of the arterial system. Bearing in mind this view of the case, the author maintained, that we could best account for the phenomena of puerperal hemorrhages. We could understand how it might happen, that the tonicity of the arterial system being great, uterine hemorrhage would be prevented when the uterus was most relaxed, and when, consequently,

venous hemorrhage would be most liable to occur—that, under the influence of morbid excitement of the heart and arteries, it might be profuse when the uterus was contracted, and when venous hemorrhage would be most effectually prevented; and that it might vary, in different cases, with the same amount of separation of the placenta.

Dr. Crisp was of opinion, that, in cases of partial separation of the placenta, the hemorrhage is not from the denuded uterus, but from the free portion of the placenta. He had been requested to see a case of Mr. Howell's in which serious hemorrhage had followed delivery, and, on examination, observed a portion of partially adherent placenta projecting from the os uteri, and was assured, from the touch, that the blood flowed from that structure. The placenta was entirely removed, and the hemorrhage ceased. He thought that abnormal position of the placenta frequently led to hemorrhage, and that the latter is quite independent of an enfeebled state of system. He attached but little importance to the experiments of Dr. Mackenzie.

Dr. Winn, on the other hand, believed that similar experiments performed on animals would ultimately set the question at rest, and, while agreeing in the author's results so far as to affirm that hemorrhage proceeds from the uterus, he differed with him in believing that the immediate source is the uterine sinuses, and not the uterine arteries. He thought that the distinction between the colour of arterial and venous blood, is sometimes liable to fallacy, since it is possible that the state of extreme nervous excitement of a patient in labour might render the venous blood of a more florid colour. A friend of his had observed, that on drawing blood from the arm of a patient labouring under pneumonia the colour was quite florid.

Dr. Murphy was quite confident, from his own experience, that, whatever may be the immediate source of hemorrhage in these cases, the flow of blood ceases on the entire removal of the placenta. He thought it important to separate these practical facts from any theories. He then referred to the two classes of opinions; the one, held by a section whom he termed the Protectionists, that it proceeds from the uterus, and the other, supported by the Reformers, that it flows from the placenta; and believe both to have built their theories upon hypothesis, and not upon experiment. He congratulated the author on having taken a first step in the required direction, and advised him to repeat his experiments again and again. He, however, cautioned him to bear in mind the great difference which exists between vital and dead structures, since, after death, the parts lose their tonicity, and any plugs which may

have once been formed remain, and prevent the passage of the injection; but, in the living structures, any new flow of blood may detach the plugs, and permit the vessels to pour out blood anew. The author had referred to Dr. Gooch's case, in which no hemorrhage occurred, although the uterus remained of large size; and thought that so exceptional a circumstance could not support the deduction—that, therefore, the contraction of the uterus exercised no influence over the flow of blood.

Mr. Clark had assisted the author in his experiments, and bore testimony to the truthfulness of his descriptions, and the fairness of his deductions. He illustrated the latter by referring to those cases of post-partum hemorrhage in which the flow of blood begins long after the placenta has been expelled; and also by stating that, as the direction of the current is from the placenta to the uterine sinuses, the latter can supply but little, if any, blood in such cases.

Dr. Snow Beck was prepared to defend each of the author's opinions seriatim; but stated, that the author's facts might be admitted and referred to apart from his deductions. He did not think that the uterine veins could be the sources of hemorrhage, and had met with several cases of partially detached placenta, in which the hemorrhage did not cease on perfect separation of that organ. He also had met with a case so far resembling one mentioned by the author, that the colour of the blood was distinctly florid, and the source, as he believed, arterial, and the hemorrhage in that case diminished or increased with the state of contractility of the organ. He would make a distinction between the contractility of the uterus as a whole, and that of the walls of the organ, and believed that the flow of blood through the vessels is rather due to the latter circumstance. This state is induced when the uterus is manipulated either within or without; and in those instances in which the hemorrhage was arrested on detachment of the placenta, the arrest might have been due solely to the contraction induced by the manipulation.—[*Med. Times and Gazette*.

On Trismus Nascentium. By NICHOLAS MERIWETHER, M.D.,
of Montgomery, Ala.

This disease generally appears sporadically, but sometimes endemically, rarely attacking white children; which is to be accounted for by the superior cleanliness of the white race. To show the great prevalence of this disease in some portions of the Southern States, I will quote the following from a paper in the May number of the *New Orleans Medical and Surgical*

Journal, on the negro and his diseases, by S. L. Grier, M. D., of Miss. :—

“The first form of disease which assails the negro race among us, is trismus. The mortality from this disease alone is very great. No statistical record, we suppose, has ever been attempted, but from our individual experience we are almost willing to affirm that it decimates the African race upon our plantations within the first week of independent existence. We have known more than one instance in which, of the births for one year, one half became the victims of this disease, and that too in despite of the utmost watchfulness and care on the part of both planter and physician. Other places are more fortunate, but all suffer more or less; and the planter who escapes a year without having to record a case of trismus nascentium, may congratulate himself on being more favoured than his neighbours, and prepare himself for his own allotment, which is surely and speedily to arrive.”

When this disease appears endemically on a plantation, it may be arrested by having the negro-houses whitewashed with lime inside and out; by raising the floors above the ground; by removing all filth from under and about the houses; by paying particular attention to cleanliness in the bedding and clothes of the mother, and in the dressing of the child so as to prevent any of the matter from the umbilicus lying long in contact with the skin of the latter. To effect this last, I usually slit a small piece of old linen, and, after greasing it, pass it between the abdomen of the child and the dressing usually applied to the umbilicus. This is to be renewed every day. The planter or overseer should be requested to examine and see whether there is any disturbance of the bowels for the first ten days after birth, so that the physician may have early notification. So much for prevention.

From the similarity of trismus to traumatic tetanus, it has been supposed that the disease is caused by absorption of pus by the umbilical vessels. I am inclined to that opinion, and base my treatment accordingly. In all the cases I have seen there was an unhealthy appearance of the navel, and disturbance of the bowels; the passages were generally greenish and ill-looking. When called early to a case (that is, as soon as there is spasmodic action in the muscles of the extremities and back, which appears usually before the affection which characterizes the disease as infant lock-jaw), I commence the treatment by giving the following mixture: \mathcal{R} . 30 gtt. paregoric; 2 gtt. oil turpentine; 4 grs. gum kino; 1 teaspoonful prepared chalk, to be mixed in 8 teaspoonfuls of water; a teaspoonful to be taken every hour or two, taking care not to narcotize the child. If the disturbance of the bowels continues, or if the spasm of the muscles does not cease, I apply a blister immedi-

ately over the navel; the blister should be circular, and larger than a dollar. With this treatment, I have rarely failed to arrest the convulsions, and save the patient.—[*American Jour. of the Med. Sciences.*

On the propriety of opening the Bowels soon after the operation for Strangulated Hernia. By J. S. GAMGEE, Esq.

The various conditions in which we find cases of hernia at the time of operation, admit of their arrangements under four heads. 1. Those cases in which the intestine is in good condition, and inflammation has not yet manifested itself; 2. Those in which, though the bowel is in very fair condition, there are local and general signs of a moderate amount of peritonitis; 3. Those in which the bowels are notably discolored, but of good consistence; peritonitis being intense; 4. Those in which there is threatening gangrene of the gut.

Let us consider the first class of cases. Since it is reasonable to suppose that in a case of strangulated hernia that has been operated upon, a part at least, of the uneasiness dependent upon the intestinal function is immediately due to its restoration, we should in this class of cases theoretically be disposed to promote the action of the intestines, when it does not occur spontaneously, a short time after the constriction has been removed. Such practice seems the more reasonable, in that there can be no fear of aggravating inflammation which does not exist, and in that there is reason to believe that the expulsion of the accumulated *fæces* is tantamount to the exclusion of a possible, if not probable, cause of inflammation.

In the second class of cases, the first part of the argument used above applies, but not the second; for inflammation exists, and the question arises, whether the administration of purgatives, theoretically indicated by the necessity of restoring the intestinal functions, may not be productive of evil by aggravating the inflammation. From what I have seen, however, these fears would not disquiet me. I think there is more chance of the progress of inflammation being checked by the expulsion of irritating *fæces*, and restoration of the gut to its function, than of its being aggravated by the stimulant action of the purgative.

In the third class of cases, in which the bowel is in moderate condition, but the peritoneum intensely inflamed, it is reasonable to believe that the constipation, although in great measure dependent upon the atony which has resulted from long inactivity, is likewise due to the disturbance of innervation incident upon the inflammation. It seems hence prudent to respect the

objections of those who allege that the inflammation may be aggravated by purgatives; but while antiphlogistics are being actively employed, there is no reason for objecting, if the bowels do not act, to enemata; the probabilities of their doing good are much greater than those of their possible perniciousness.

In the fourth class of cases, (threatening gangrene of the intestine,) inasmuch as there is more to fear from the action of the intestines, though it be but moderate, than from their activity, though it be extreme, enema and purgatives appear contra-indicated so long as there is reason to fear disorganization of the gut.

From the foregoing considerations, flow three rules for practice, in cases in which the operation of herniotomy is not followed by spontaneous action of the bowels.

1. When the condition of the gut is good and there is little or no peritonitis, an oleaginous enema should be given an hour or two after the operation, and repeated after three or four hours in case of failure, or a purgative exhibited by the mouth.

2. When the peritoneal inflammation is intense, even though the bowels be in fair condition, antiphlogistics must be perseveringly employed; and though a simple enema may be given in the first six hours, it is inadvisable to excite the action of the bowels until the next day, either by more active enemata or purgatives by the mouth.

3. In the case of mortification threatening the gut, the bowels should be kept quiet by opium, and purgatives and enemata abstained from until the danger of perforation has passed.

[*Assoc. Medical Journal.*]

On Hydrophobia as it occurred in France in 1852. By M. AMBROSE TARDIEU.

In the year 1850, the minister of agriculture and commerce, on the recommendation of the committee of public health, sent a circular to every prefect in France, requesting him to give information regarding any cases of hydrophobia which might occur in his department. A number of reports were in consequence sent in, but as these were in some respects incomplete, a fresh circular was issued, detailing more particularly the manner in which the cases should be recorded. From the information so obtained, M. Tardieu drew up a report regarding the cases which occurred in the years 1850-51, as well as in 1852. As the report for the year 1852 is much more complete than the others, we subjoin an abstract of it.

1. The number of cases of hydrophobia which occurred in France during the year 1852, was 48. These were observed

in 14 departments: the department in which the greatest number occurred was that of the Hautes Alpes, (in the south-east of France, latitude between 44° and 45°); while the department of Lozère (also in the south, and having the same latitude as the other) came next.

2. With regard to the sex; 36 of the 48 cases were males, 12 females; the proportion in the two preceding years was almost the same.

3. The following table exhibits the ages of the subjects affected with hydrophobia:

Below 5 years, in 1852,	3 in two former years,	4 = 7
From 5 to 15	16	14 = 30
" 15 to 20	4	11 = 15
" 20 to 30	3	9 = 12
" 30 to 60	17	37 = 54
" 60 to 70	1	7 = 8
Above 70	0	6 = 6
Not mentioned	4	0 = 4
	48	88 = 136

This table shows the incorrectness of the opinion which ascribes the disease to the effects of terror, for it shows that 7 children under five years of age have been attacked.

4. All the cases which occurred in 1852 originated in the bites of dogs, except one, where the bite of a cat was the cause of the disease.

5. The situation of the wounds inflicted by the rabid animals was as follows in 48 cases:—On the face, 13 times; on the upper extremities, 15; on the lower extremities, 12; not mentioned, 8. In two of the cases the disease was communicated by pet dogs which were accustomed to lick their master's faces, and where excoriated lips were the seat of the inoculation.

6. In 40 out of the 48 cases the date of the inoculation has been observed. It occurred in March, April and May, in 10 cases; in June, July, and August, 16; in September, October, and November, 4; in December, January, and February, 10.

7. It seems a considerable number of individuals who are bitten by rabid animals escape the disease. During 1852 some observations were made on this point, and it appeared that out of 44 persons bitten, about the same time 23 only were attacked.

8. The period of inoculation of the disease was exactly noted in 20 cases. It was as follows: Less than a month in 8 cases; from 1 to 3 months 10; from 3 to 6 months 1; 11 months, 1.

9. The duration of the disease in 20 cases was 2 days in 6 cases; 3 days in 8; 4 days in 5; 6 days in 1.

10. The termination of *confirmed* cases of hydrophobia was constantly fatal. Of the 48 cases, it appears that only 27 came under this category; in the others the effect was merely local. In 12 of these 27 cases no precaution was taken, in 4 no mention is made of this circumstance. In 8 of the remaining 11 cases cauterization was resorted to immediately, in 3 at a late period. Of the 21 individuals who escaped (see ¶ 7) cauterization was energetically performed in 12 cases; the details of the other 9 have been omitted.

11. As to the mode of cauterization employed, the actual cautery was used in all cases but 5, and these were treated by protonitrate of mercury, nitric acid, ammonia or butter of antimony. In Germany it has been proposed to excise the bitten parts and then to wash the wounds with a solution of caustic potash.—[*Annales d'Hygiene. Peninsular Journ.*

Placenta Prævia. By O. H. TAYLOR, M.D., of Camden, N. J.

In examining the recent medical report from Gloucester County, N. J., I observe that Dr. Sickler has presented, with some interesting remarks, two cases of presentation of the placenta, in each of which the placenta was *spontaneously delivered* before the birth of the child.

The question, whether the result so happily effected by nature in these instances, should ever be promoted by art, is one that has been canvassed of late, by obstetricians, with deep interest and anxiety. Nor is this surprising, when we consider the extreme urgency of the dangers threatening the mother from hemorrhage, and the vital importance of the function of the placenta, even during labor, if at all protracted.

From my own observation and reflection on several cases of attachment of the after-birth over the *os uteri*, coupled with severe hemorrhage, which have occurred in my practice within the last twenty-eight years, I am induced to coincide with Dr. Sickler in opinion, not only as to the propriety and safety, but the *absolute necessity*, in certain circumstances, of removing the placenta before the delivery of the child. That the established method of turning the infant in cases of severe hemorrhage, during parturition, may be impracticable, without great delay, when the *os uteri* is but slightly dilated, and presents rigid and unyielding edges, every experienced practitioner is aware. The strength of the mother may be fatally exhausted before the hand can be introduced. Even in the most favorable cases, the condition of the placenta during the delivery, with much of its surface still adherent, and preventing the contraction of the bleeding vessels beneath the detached

portions, is incalculably more favorable for an arrest of hemorrhage, than if it were entirely detached; and the question of danger to the child, from the removal of its external lungs before its mouth reaches the atmosphere, is one of time only. If there be a possibility of a rapid delivery, we should not hastily allow this danger to prevent us from giving the greatest possible security to the patient.

Three cases of placenta implanted over the os uteri, occurred to me in the early part of my practice, and their history proves how fatal may be the results of uterine hemorrhage, even during the act of turning and delivering the child. In each of these cases, the operation of perforating the after-birth was performed in the presence and by the counsel of the late distinguished professor James, of the University of Pennsylvania; Dr. Charles D. Meigs, now Professor of Obstetrics in Jefferson Medical College, being also present in consultation in one of these cases. All these cases terminated fatally in a very short time after the delivery of the infants, which were still-born. Neither of the mothers survived more than three hours, and all died from the exhaustion caused by excessive hemorrhage.

That the operation of removing the placenta immediately, when found to present itself at the os uteri, is capable of being performed with safety to both mother and child, under favorable circumstances, I am fully convinced; but as Dr. Sickler very pertinently remarks, "the advisability and determination of the conditions in which it should be practiced, must be decided by an induction from a larger number of cases than have as yet been submitted to the profession."

My own experience leads me to the conclusion, that when the placenta is fairly implanted over the os uteri, and is firmly attached throughout its borders, it can be removed before delivery, with more safety both to the mother and child, than can be secured by perforating or elevating the edges, and bringing the child down by the feet.

In nearly all the cases that I have witnessed, expulsive and efficient pains have been brought on soon after the placenta has been completely detached; and these pains have continued so as to produce the prompt expulsion of the child whenever the presentation has been natural.

Even when the complication is coupled with a preternatural presentation, it does not appear to me that the immediate delivery of the placenta is necessarily contra-indicated. It would be folly to dwell upon the imminent danger to the child in such cases; and if the hemorrhage be permitted to continue unchecked during the protracted delivery by the feet (supposing

this to be possible in the case) what will be the fate of the mother? Should we not give her the advantage of that arrest of hemorrhage which appears so generally to follow the entire detachment of the placenta, even before its positive expulsion? Certainly we should, at least whenever the presentation or the condition of the patient can be ascertained to be such, that very prompt delivery by the feet is impracticable; for then the death of the child is insured at all events; and as has been already hinted, it is precisely when such prompt delivery is most easily effected, that the danger to the child from the previous detachment is least, and the advantage to the parent, I think, indisputably the greatest.

I throw out these few suggestions to the profession, in the hope of inducing the report of every fact which may tend to decide one of the most important practical questions which has been mooted by obstetrical practitioners for many years.—Uterine hemorrhage has long been the terror of both patient and physician, and any thing which tends in the least degree to lessen its dangers, is worthy of the most profound respect and serious consideration.

Permit me, then, to offer, in concluding this note, the abstract of a recent case, in which the effect upon uterine hemorrhage produced by the expulsion of the placenta before the delivery of the child, is happily illustrated.

On the 27th of April, 1853, I was requested to visit Mrs. B., on account of a profuse and unnatural flow of blood from the uterus. She considered herself as being eight months advanced in pregnancy. At the time of my first visit, she was not complaining of much pain, though the hemorrhage was very considerable in amount.

A digital examination proved that the os uteri was but slightly dilated. I directed pulv. acetat. plumbi et opii, but found it necessary, also, to apply the tampon, by means of which the bleeding was restrained, and I was enabled to leave my patient in an hour.

After the lapse of eight or ten days, the flooding recurred, and the same treatment was repeated, with a similar result.

On the 15th of May following, being the 19th day after the first attack, I was again summoned to the case, and found the patient laboring under a hemorrhage quite as profuse as at the time of the first visit, or even more so. By examination per vaginam, I found the os uteri dilated about two inches. The placenta was evidently implanted immediately over it. By pressing the index finger firmly towards the right ilium. I detached a portion of the adherent placenta, and was able distinctly to recognize the presenting portion of the fœtus, which proved to be the head.

Periodic pains of the regularly expulsive character, were now established, but each was accompanied with an excessive discharge of blood.

The imminency of the danger to the mother from hemorrhage, induced me to decide that nothing would be forfeited by following any plan of action calculated promptly to arrest it. I therefore proceeded to separate the attachments of the placenta to the uterus in the hope that possibly I might be able to thrust the after-birth back from the orifice, and thus enable the head to engage itself in the superior strait. On making the attempt to push the placenta beyond the presenting part of the head, however, I found myself opposed and thwarted by the descent of a large portion of the mass into the vagina. The result accorded with the experience adduced from the history of other and parallel cases; for two or three more pains completely expelled the placenta into the vagina, and the hemorrhage then instantly ceased. In five or six minutes more the child was born, and although reasonably a little languid at first, it soon began to cry, and has since been a healthy and promising child.—[*New Jersey Medical Reporter*.

New mode of Treatment for Delayed Non-Union of a Fractured Humerus. Read before the Medical Society of the County of Erie. By FRANK H. HAMILTON, M. D.

It has been observed by surgeons that non-union results more frequently after fractures of the shaft of the humerus, than after fractures of the shaft of any other bone. This observation is confirmed by my own researches.

Comparing the humerus with the femur, between which, above all others, the circumstances of form, situation, &c., are most nearly parallel, and in both of which non-union is said to be relatively frequent, I find that of forty-nine fractures of the humerus, four occurred through the surgical neck, twelve through the condyles and twenty-nine through the shaft. In one of the twenty-nine, the patient survived the accident only a few days. In four of the remaining twenty-eight, union had not occurred after the lapse of six months, and in many more was it delayed considerably beyond the usual time. Two of the four were simple fractures, and occurred near the middle of the humerus; the third was compound, and occurred near the middle also; the fourth was compound, and occurred near the condyles.

This analysis supplies us, therefore, with four cases of non-union, from a table of twenty-eight cases of fractures through the shaft.

Of eighty-seven fractures of the femur, twenty occurred through the neck, one through the trochanter major, and one through the condyles. The remaining sixty-five occurred through the shaft and generally near the middle, and in not one case was the union delayed beyond six months.

To make the comparison more complete, I must add that of the twenty-eight fractures of the shaft of the humerus, six were compound; and of the sixty-five fractures of the shaft of the femur, six were either compound, comminuted, or both compound and comminuted. The six compound fractures of the shaft of the humerus, furnished two cases of non-union. The six cases of either compound or comminuted, or compound and comminuted fractures of the femur, furnished no case of non-union.

I beg to suggest to the Society what seems to me to be the true explanation of these facts.

It is the universal practice, so far as I know, in dressing fractures of the humerus, to place the forearm at right angles with the arm. Within a few days, and generally, I think, within a few hours, after the arm and forearm are placed in this position, a rigidity of the muscles and other structures has ensued, and to such a degree, that if the splints and sling are completely removed, the elbow will remain flexed and firm; nor will it be easy to straighten it. A temporary false ankylosis has occurred, and instead of motion at the elbow joint, when the forearm is attempted to be straightened upon the arm, there is only motion at the seat of fracture. It will thus happen that every upward and downward movement of the forearm will inflict motion upon the fracture, and inasmuch as the elbow has become the pivot, the motion at the upper end of the lower fragment will be the greater in proportion to the distance of the fracture from the elbow joint.

No doubt it is intended that the dressings shall prevent all motion of the forearm upon the arm; but I fear that they cannot always be made to do this. I believe it is never done when the dressing is made without angular splints, nor is it by any means certain that it will be accomplished when such splints are used. The weight of the forearm is such when placed at right angles with the arm and encumbered with splints and bandages, that even when supported by a sling, it settles heavily forwards, and compels the arm dressings to loosen themselves from the arm in front of the point of fracture, and to indent themselves in the skin and flesh behind. By these means the upper end of the lower fragment is tilted forward. If the forearm should continue to drag upon the sling, nothing but a permanent forward displacement would

probably result. The bones might unite, yet with a deformity.

But the weight of the forearm under these circumstances is not uniform, nor do I see how it can be made so. It is to the sling that we must trust mainly to accomplish this important indication. But you have all noticed that the tension or relaxation of the sling depends upon the attitude of the body, whether standing or sitting—upon the erection or inclination of the head—upon the motions of the shoulders, and in no inconsiderable degree upon the actions of respiration. Nor does the patient himself cease to add to these conditions by lifting the forearm with his opposite hand whenever provoked to it by a sense of fatigue.

This difficulty of maintaining quiet apposition of the fragments while the arm is in this position, at whatever point the arm may be broken, becomes more and more serious as we depart from the elbow joint, and would be at its maximum at the extreme upper end of the humerus, were it not that here a mass of muscles, investing and adhering to the bone, in some measure obviates the difficulty. Its true maximum is therefore near the middle, where there is less muscular investment, and where, on the one hand, the fracture is sufficiently remote from the pivot or fulcrum to have the motion of the upper end of the lower fragment multiplied through a long arm, while on the other hand it is sufficiently near to the armpit and shoulder to prevent the upper portion of the splint and arm dressings from obtaining a secure grasp upon the lower end of the upper fragment.

It must not be overlooked that the motion of which we speak belongs exclusively to the lower fragment, and that it is always in the same plane, forwards and backwards; but especially that it is not a motion upon the fracture as upon a pivot, but a motion of one fragment to and from its fellow. This circumstance I regard as important to a right appreciation of the difficulty. Motion, alone, I am fully convinced, does not so often prevent union as surgeons have generally believed. It is exceedingly rare to see a case of non-union of the clavicle. Of forty-seven cases of fracture of the clavicle which have come under my observation, and in by far the greater majority of which considerable overlapping and consequent deformity has resulted—of this number only one has resulted in non-union, and in this instance no treatment whatever was practiced, but from the time of the accident the patient continued to labor in the fields and hold the plow as if nothing had occurred. I have therefore seen no case of non-union of the clavicle where a surgeon has treated the accident. Indeed, what is most re-

markable, its union is more speedy, usually, than that of any other bone in the body, of the same size. Yet to prevent motion of the fragments in a case of fractured clavicle with complete separation and displacement, except where the fracture is near one of the extremities of the bone, I have always found wholly impracticable. Whatever bandages or apparatus I have applied, I have still seen always that the fragments would move freely upon each other at each act of inspiration and expiration, and at almost every motion of the head, body or upper extremities. It is probable, gentlemen, that you have made the same observation.

From this and many similar facts I have been led to suspect, for a long time, that motion has had less to do with non-union than was generally believed.

I find, however, no difficulty in reconciling this suspicion with my doctrine in reference to the case in question; and it is precisely because, as I have already explained, the motion, in case of a fractured humerus, dressed in the usual manner, is peculiar. In a fracture of the clavicle through its middle third (its usual situation,) the motion is upon the point of fracture as upon a pivot; although, therefore, the motion is almost incessant, it does not essentially, if at all, disturb the adhesive process. The same is true in nearly all other fractures. The fragments move only upon themselves, and not to and from each other. I know of no complete exception but in the case now under consideration.

Aside of any speculation, the facts are easily verified by a personal examination of the patients during the first or second week of treatment, or at any time before union has occurred, both in fractures of the humerus and clavicle. The latter is always sufficiently exposed to permit you to see what occurs, and as soon as the swelling has a little subsided in the former case, you will have no difficulty in feeling the motion outside of the dressings, or perhaps in introducing the finger under the dressings sufficiently far to reach the point of fracture. I believe you will not fail to recognize the difference in the motion between the two cases.

Such, gentlemen, is the explanation which I wish to offer for the relative frequency of this very serious accident—non-union of the humerus.

I know of no other circumstance or condition in which this bone is peculiar, and which therefore might be invoked as an explanation. Overlapping of the bones, the reason assigned by some writers, is not sufficient, since it is not peculiar. The same occurs much oftener, and to a much greater extent, in fractures of the femur, and equally as often in fractures of the

clavicle; yet in neither case are these results so frequent. Nor can it be due to the action of the deltoid or of any other particular muscles about the arm, whether the fracture be below or above their insertions, since similar muscles, with similar attachments on the femur and on the clavicle, tending always powerfully to the separation of the fragments, occasion only deformity, but not non-union.

If I am correct in my views, we shall be able sometimes to consummate union of a fractured humerus where it is delayed, by straightening the forearm upon the arm, and confining them to this position. A straight splint, extending from the top of the shoulder to the hand, made of some firm but moulding material, and made fast with rollers, will secure the requisite immobility to the fracture. The weight of the forearm and hand will only tend to keep the fragments in place, and if the splint and bandages are sufficiently tight, the motion occasioned by swinging the hand and forearm will be conveyed almost entirely to the shoulder joint. Very little motion indeed, can in this posture be communicated to the fragments, and what little is thus communicated, is a motion which experience has elsewhere shown not disturbing or pernicious, but a motion only upon the ends of the fragments as upon a pivot.

I do not fail to notice that this position has serious objections and that it is liable to inconveniences which must always, probably, prevent its being adopted as the usual plan of treatment for fractured arms. It is more inconvenient to get up and lie down, or even to sit down, in this position of the arm; and the hand is liable to swell. But I shall not be surprised to learn that experience will prove these objections to have less weight than we are now disposed to give them. Remember, the practice is yet untried—if I except the case which I am about to relate, and in which case, I am frank to say, these objections scarcely existed. The swelling of the hand was trivial and only continued through the first fortnight, and the patient never spoke of the inconvenience of getting up or sitting down, or even of lying down.

The following is the case to which I have just referred.

Michael Mahar, laborer, æt. 35, broke his left humerus just below its middle, Dec. 14, 1853. The arm was dressed by a skilful surgeon in Canada West, and who is well known to me as exceedingly "clever." After a few days from the time of the accident, "the starch bandage was put on as tight as it could be borne, and brought down on the forearm so as to confine the motions of the elbow joint."

Six weeks after the injury, Jan. 29, 1854, Mahar applied to me at the hospital. No union had occurred. The motion

between the fragments was very free, so that they passed each other with an audible click. There was little or no swelling or soreness. In short, every thing indicated that union was not likely to occur without operative interference. The elbow was completely ankylosed. His health was unimpaired.

I explained to my students what seemed to me to be the cause of the delayed union, and declared to them that I did not intend to attempt to reestablish adhesive action until I had straightened the arm. They had just witnessed the failure of a precisely similar case in which I had made the attempt without straightening the arm and without success.

Feb. 6, 1854. I had succeeded in making the arm nearly straight. I now punctured the upper end of the lower fragment with a small steel instrument, and as well as I was able, thrust it between the fragments. Assisted by Dr. Boardman, I then applied a gutta percha splint from the top of the shoulder to the fingers, moulding it carefully to the whole of the back and sides of the limb, and securing it firmly with a paste roller.

March 4th. (Not quite four weeks after the application of the splint.) I opened the dressings for the second time, and carefully renewed them. A slight motion was yet perceptible between the fragments.

March 18th. I opened the dressings for the third time, and found the union complete. This was within less than forty days.

The patient was now dismissed. On the 29th of April following the bone was refractured. Mahar had been assisting to load the "tender" to a locomotive. While the train was just getting in motion he was hanging to the tender by his sound arm when another laborer seized upon his broken arm to keep himself upon the car, and with a violent and sudden pull wrenched him from the tender and reproduced the fracture.

The next morning I applied the dressings as before, and did not remove it during three weeks, at the end of this time the union was again complete. The splint was, however, re-applied and has been continued to this time—a period of about six weeks.—[*Buffalo Medical Journal*.]

Paralysis occurring during Gestation and in Childbed.

The *Dublin Quarterly Journal of Medical Science* (May, 1854) contains a very interesting article on this subject, with the particulars of 84 cases collected from various sources, by Dr. FLEETWOOD CHURCHILL.

The following is a summary of these cases, with his remarks upon the more important points connected with them. The

number of cases he admits, however, are too few to justify decided conclusions from them:—[*Am. Jour. of Med. Sci.*

“Of the 34 cases, in 22 the attack occurred during pregnancy ; in 12, either during or after labour.

“In 23 cases where it is mentioned, I find that with 10 it was their first child, with 1, the second ; with 4, the third ; with 2, the fourth ; with 3, the fifth ; with 1, the sixth ; with 1, the thirteenth ; and one had several children, but the number is not specified.

“Of the 34 cases, there were 17 of complete hemiplegia, and 1 partial ; 4 of paraplegia, in 2 of which only one leg was affected ; 6 of facial paralysis ; 5 of amaurosis, and 3 of deafness ; but in some of these latter local palsies were combined with the cases of hemiplegia. Of 14 cases of hemiplegia, in which the side affected is mentioned, I find that 11 were of the right, and 3 of the left side.

“Of the 34 cases, 4 died.

“It may be well, however, to consider these cases somewhat more closely, and for that purpose they may be divided into two classes, those which occurred during pregnancy, and those which were attacked during or after labour.

“Of the 22 cases in which paralysis occurred during pregnancy, 12 were examples of hemiplegia ; 1 of paraplegia, which had occurred previously ; 4 of facial paralysis ; 2 of amaurosis ; and 3 of deafness. There is no regularity as to the period of gestation at which the seizure took place, for of 13 cases in which this is mentioned, in 1 it occurred in the second month ; in 1 in the third or fourth ; in 1 in the fifth ; in 1 in the sixth or seventh ; in 3 in the seventh ; in 2 in the eighth ; and in 4 in the ninth month ; from which it would seem, upon the whole, that it is in the latter months that pregnant women are most liable to the attack.

“Of 19 cases, 11 appear to have been cured before or by delivery, and in 8 the disease continued for a longer or shorter time afterwards.

“Of the 20 cases, only 1 died, and in this case it is evident that death was rather owing to disease of the brain, of longer standing than the pregnancy, than to the paralysis which increased during that process ; so that I do not think we can reckon it as impairing the comparatively innocuous character of these attacks during gestation.

“In 3 cases only was the paralysis preceded by convulsions. In most of the cases it does not appear that there were any premonitory symptoms, little or no headache, or any other circumstance calculated to excite apprehension until the paralysis supervened. The characteristics of the palsy resembled very closely those of similar attacks unconnected with pregnancy ; the motor power was enfeebled or altogether lost ; in some the sensibility was increased, diminished, or modified ; but in others, I infer from the silence of the reporter, that it was little, if at all, changed from its natural condition. The intellect seems to have preserved its integrity in all the cases. A peculiarity of great interest in many of these cases, and to which I shall revert by and by, is the presence of albumen in the urine, whenever that secretion was carefully examined.

"The second class, consisting of 12 cases, is characterized by the attack occurring during or after labour. It is remarkable that in 3 cases only (Cases 23, 24, 25) did the paralysis take place during labour, and of these, 2 were cases of convulsions; in all the others it not merely succeeded labour, but in most cases after an interval sometimes considerable: for example, in Case 23, it took place on the first day after delivery; in Case 27, two days afterwards; in Case 32, three days; in Case 34, seven days; in Cases 26, 29, 31, eight days; in Case 30, ten days; and in Case 33, a month afterwards.

"Of these 12 cases, 5 were cases of complete hemiplegia; in 1 only the arm was affected; 1 was a case of complete paraplegia; in 1 the right, and in 1 the left leg only was paralyzed; 2 were examples of amaurosis; 1 of facial paralysis; and in 3 only of the cases of hemiplegia the face participated in the attack. In Dr. Levy's very remarkable case, the paralysis of the motor power of one side was accompanied by loss of sensibility on the other. In some of the cases the sensibility was diminished, in others unaltered, but in none increased. The phenomena of the disease were not peculiar: in the majority of the cases the attack occurred generally without warning, and without any obvious cause. In 2 cases convulsions terminated in amaurosis, but in Mr. Forrest's case the paralysis preceded the convulsions, and during the latter, the paralyzed limbs shared in the convulsive movements.

"The duration of the disease varied a good deal, the paralysis gradually subsiding in most cases: in Case 22, after several days; in Case 23, in six weeks; Case 31 recovered the use of the arm in a fortnight, but vision remained imperfect for some months; in Case 34, in a month; in Cases 28, 29, in two months; Case 22 recovered the power of walking in two months, but was then attacked by another disease which proved fatal; Case 26 left the hospital without improvement.

"In 3 cases death occurred: in Case 32, on the fourteenth day, and in Case 34, on the twenty-fourth day after the paralytic seizure. Dr. Ley does not mention on what day his patient died.

"I have already alluded to the fact that in most of the cases the attack occurred without warning, and without apparent *cause*. Some cause there must be, of course; but it is much easier, in most cases, to say what it is not than what it is. For example, in none of these examples except one, did it appear to depend upon any external influence—upon cold, exposure, violence, &c.—or upon mental distress; in few, if any, was there evidence of previous cerebral congestion, or disease of any other organ.

"It has been suggested that the palsy may be merely the termination of convulsions, and certainly some of these cases would seem to support this view; but if this were generally true, we should find convulsions more frequently preceding the paralysis; and, also, we should meet with more cases of convulsions terminating in paralysis; Now, in all the cases I have quoted, a large majority exhibited no convulsive movements at all, and, on the other hand, of all the cases of

convulsions related by Drs. Collins, and McClintock and Hardy, there is not a single instance of such a termination; we must therefore refer both convulsions and paralysis to some common or different cause.

“I have no doubt, as Dr. Romberg has observed, that in a number of cases, especially those which occur during gestation, the palsy is due to a reflex action from some organ or structure in a morbid condition, and in which the nervous system seems to be merely the channel of transmission, offering no central disorganization. In such cases the exciting cause may possibly be some injury or morbid condition of the generative organs, or perhaps merely a transient excitement, such as that of pregnancy. It is possible, also, that some of the instances occurring during gestation ought rather to be classed under the head of hysterical paralysis, as described by Drs. Laycock and Romberg; but it is not always easy to make the distinction.

“Obstruction of the arteries has been recently shown by Professor Simpson* to be an occasional occurrence in child-bed, either from arteritis, a coagulum, or a detached vegetation; and a degree of paralysis may be the result; but inasmuch as the death of the limb, and ultimately of the patient, is the direct consequence of such an occurrence, the history of the cases I have quoted removes from them the suspicion of being thus caused.

“It might naturally be supposed that the stress and exertions during labour, which give rise to such great congestion of the face and head by also occasioning congestion of the brain, might be considered one of the principal causes; but such a supposition is not borne out by facts, for, excluding the cases of convulsions, in only one case did the paralysis occur at the time of labour; in all the others it either supervened before labour, or subsequently, at a time when all such direct action must have ceased, and in some, after such an interval that we cannot suppose it even a remote effect of the parturient agony. On the other hand, when we remember the number of severe labours in which no such attack occurs, or compare its frequency with that of convulsions during labour, we can scarcely attribute much influence to this cause.

“Again, as we have seen, paraplegia has been attributed to severe and prolonged labour, and to the consequent mechanical pressure upon the nerves and muscles of the pelvis, and at first sight this seems an adequate and feasible explanation, and of which no one could deny the possibility; yet so far as our cases are concerned it can hardly have been so, for in all but one the labour was natural, easy, and not prolonged: in the exceptional case the patient had been delivered by the forceps; moreover, the period at which it occurred was too distant to justify our attributing it to this cause in the other cases. On the other hand, if we recollect the number of severe, prolonged, and instrumental deliveries which take place, without any such result, no example being recorded by Drs. Collins, McClintock, and Hardy, or with the exceptions I have quoted, in any of the reports of the British

* *Edinburgh Monthly Journal*, February, 1854.

and foreign hospitals, so far as I am acquainted with them, I think we must also reject this peculiarity of labour as a necessary or frequent cause.

"In two cases the attacks seem to have been connected with an anemic condition, consequent upon hemorrhage, either from the direct effect of a deficiency of the circulating fluid, or indirectly from the increased susceptibility of the nervous system, under these circumstances, to ordinary exciting causes. In another case paraplegia appeared to result from cold; but, in the majority of cases, as I have already observed, there was neither plethora nor anemia; neither exposure, want, injury, advanced age, mental distress, nor sudden shock; in short, there was no apparent cause.

"Unfortunately for the cause of science, there are very few *post-mortem* examinations on record, from which we might decide with some degree of certainty upon the nature of the affection. In all the slighter and more partial cases, life is preserved, and when death occurs in the more severe instances, permission to examine the body cannot always be obtained. Of the four fatal cases I have here detailed, two only were examined; in these, and I doubt not in the other two also, disease of the brain or its membranes existed. In Dr. Ley's case, he states that 'no positive disorganization of the brain could be detected. The ventricles, however, contained more than the usual serum; and there was found, more especially opposite to the original seat of pain, thickening and increased vascularity of the membranes, with moderately firm adhesions in some parts; in others an apparently gelatinous, transparent, and colourless deposit interposed between them.' In short, there appears to have been an attack of partial meningitis, and the contrast between the peculiar train of symptoms to which it gave rise, and the absence of all symptoms except the palsy in Dr. Duke's case, is very interesting, when we remember the remarkable disorganization we discovered in the latter case.

"Now in these cases we may fairly assume that the palsy and death itself were the result of the disease of the brain and its membranes, but to what are we to attribute the slighter and more numerous cases? Do they not appear to belong to the class described by Dr. Abercrombie, as 'depending upon a cause which is of a temporary nature, and capable of being speedily and entirely removed?'

"What is this temporary cause, producing so serious a disturbance, and yet scarcely, if at all, endangering life? May it be the one to which Dr. Latham refers, as observed 'in those convulsions and apoplexies which appear and disappear, the chief circumstance which attracts our attention being albuminous urine?' At any rate, it deserves our careful attention. Of the fact of the occurrence of albuminuria with certain affections of the nervous system during pregnancy and child-bed, there can be no doubt whatever. Both Drs. Lever and Simpson have detected it in cases of convulsions during pregnancy and labour; the former observes: 'I have carefully examined the urine in every case of puerperal convulsions that has since come under my notice, both in the Lying-in Charity of Guy's Hospital and in

private practice, and in every case but one the urine has been found to be albuminous at the time of the convulsions.' 'I have further investigated the condition of the urine in upwards of fifty women, from whom the secretion has been drawn during labour by the catheter, care being taken that none of the vaginal discharges were mixed with this fluid; and the result has been that in no cases have I detected albumen, except in those in which there have been convulsions, or in which symptoms have presented themselves which are readily recognized as precursors of puerperal fits.' Dr. Simpson's observations about the same time, and those of more recent observers, Sabatier, Legroux, Richelot, and others, have confirmed the conclusions of Dr. Lever as to the presence of albumen in the urine in cases of puerperal convulsions, so that no doubt now exists as to the fact, although we occasionally meet with cases of convulsions without albuminous urine, and of albuminuria without convulsions.*

"Now, as paralysis in some cases occurs in connection with convulsions, if not as a consequence of them, we might, not unnaturally, expect albumen in the urine of such patients, and accordingly, in a patient of Dr. Lever's and in others, we find that it has been detected.

"But we may go a step further, and state that in cases where no convulsions have preceded the paralysis albuminuria has been equally observed. Dr. Lever says of his cases, that in none in which he examined the urine did he ever fail to find albumen, and the great experience of Professor Simpson is in close accordance with this, as may be seen by the quotations I have given, and by the cases with which he has favored me. This was observed also in Dr. Duke's case, where the paralysis succeeded the delivery; and in which I think there is ground for believing that the albumen had diminished at the time the urine was first examined. In all probability it would have been detected in many others, had an investigation been made.

"Thus we find that albuminuria may be a marked symptom in puerperal convulsions, whether terminating in paralysis or not; and in the palsy of pregnant and puerperal women, whether partial or complete, whether local or general; and if the observations are yet too few to draw any very positive conclusions, it is, I believe, because our attention has not been drawn to the subject. And when, in addition, we find, as Dr. Lever states, that as the albumen diminishes, the paralysis subsides, we can hardly doubt that there is some important connection between them.

* It may be of interest to append Dr. Seyfert's conclusions on this subject. "1. Albuminuria is not an essential accompaniment of normal, healthy pregnancy. 2. The theory, ascribing albuminuria to the pressure of the enlarged uterus on the renal vessels, is inadmissible. 3. When anasarca, from Bright's disease, occurs during pregnancy, the patients are seldom attacked by eclampsia. 4. The albuminuria, in cases of eclampsia, is occasioned by the interruption of the functions of the respiration and circulation by the attack. 5. In such cases the albuminuria terminates with the attack. 6. Albuminuria is not present in all cases of eclampsia. 7. Albumen is found in large quantities in the urine of epileptics, *immediately after an attack*; but not invariably after every seizure, or in every case of the disease. 8. Provided there be no Bright's disease, this albuminuria among epileptics ceases soon after the convulsions, and only returns after the next attack."—[*Edinburgh Monthly Journal*.

“What, then, is the precise pathological significance of albuminuria? We may assume as established, that although it occurs in Bright’s disease, *it alone is no proof of the presence of that disease*; but in the present state of our knowledge it is very difficult, perhaps impossible, to come to any very decided conclusion upon the matter. It is conceivable that an unusual, morbid, or noxious ingredient in the urine may be produced in either of three ways: 1. By simple elimination from the blood, in which it was present; 2. As the result of diseased action of the kidneys, excited either by some noxious principle in the blood, or by a morbid condition of these organs; or, 3. As a new compound, the result of chemico-pathological action, which we may or may not be able to explain.

“Now, albumen in the urine cannot be placed under the latter category, as it is not a new principle, but one already existing in the blood. Nor does it come under the first, for although it is possible that it might be eliminated from the blood in which it is present, it cannot be as a noxious element, nor would this simple elimination account for the condition of the kidneys or for the concomitant symptoms. So that it would appear this secretion of albumen must be owing to some disordered action of the kidneys, excited by some morbid element, in kind or degree, which they are endeavoring to separate from the blood. This seems at least to be the opinion of a high authority, Dr. George Johnson, of London, who, in describing acute desquamative nephritis, in which albumen is so largely secreted, observes: ‘that all the changes of structure commence in the secreting cells of the gland, and are the result of an effort made by the cells to eliminate from the blood some abnormal products, some materials which do not naturally enter into the composition of the renal secretion.’* This view is further confirmed by a *post-mortem* examination into the state of the kidneys themselves in albuminuria. Dr. Handfeld Jones, in a recent paper, has described three varieties: ‘The first is the condition of engorgement, such as is seen in those who die in the early stages of acute anasarca, or in that of dropsy succeeding scarlatina. The organ is enlarged, dripping with blood in every part; its tissue not destroyed, but many of the tubes are seen, under the microscope, to contain coagula of exuded fibrin, entangling blood-globules, and more or less of epithelium.’ ‘The second form of diseased renal structure is that of the large, heavy, often mottled and pale kidney. In this there is no hyperemia, but rather the reverse state usually exists. The cut surface has not the appearance of healthy structure, and gives one the idea of some matter having been implanted among the natural constituents, so as to obscure them and to produce a confused aspect. The tubes are found impacted with epithelial matter, but not by any means constantly obstructed or blocked up, although they may be irregularly dilated, &c.’ ‘The third variety of morbid change is that so familiar to observation as the dwindled glandular kidney.’†

“When we consider the temporary nature of the albuminuria in

* Diseases of the Kidney, p. 105.

† Medical Times and Gazette.

many of the cases of paralysis, we need have little doubt that the condition of the kidneys answers to the first variety here described, or that of extreme congestion, and this opinion is confirmed by the examination of Case 34, in which we found a high degree of congestion, which had indeed passed into a more advanced stage. I think, therefore, that we may fairly assume the albuminuria is due to a congested state of the kidneys, and I confess I cannot but think that the explanation given by Dr. G. Johnson and others, that this congestion is excited by the effort to eliminate some noxious element from the blood, is more in accordance with our present knowledge than any other, yet I must not omit to mention that by some this congestion has been attributed to pressure of the gravid uterus upon the renal vessels. Dr. Seyfert, as we have seen, rejects this mechanical explanation, and seems to attribute the albuminuria to the eclampsia, in consequence of the interruption of the functions of respiration and circulation.

"But, if the former theory be true, what is this morbid element, morbid in kind or degree? It is very difficult to answer this question. Dr. Simpson suggests that it may be an excess of urea or some morbid quantity or quality of caseine in the blood. Dr. George Johnson's observations seem to prove that in these cases, in addition to a change in the proportion of the normal constituents of the blood, of which the diminution of its albumen is one, there is always an excess of urea.

"Then it may be asked, 'to what is the effect upon the nervous system owing?' One can conceive that it may result either—1. From the continued presence of the noxious principle in the blood; or, 2. From the balance of the constituents of the blood having been destroyed; or, 3. From the diseased condition of the kidney—though to which of these we ought to attribute it, would be difficult to decide.

"But at whatever conclusion we arrive with respect to these interesting points, I am sure all will agree with me, that, taking the circumstances into consideration, it is probable the kidneys play a more important part in these paralytic affections than has been suspected, and that the subject deserves more attention than it has received. For, we find that in cases of convulsions terminating in paralysis, we may have albuminuria; in paralysis before delivery, without convulsions, we may have albuminuria; in paralysis occurring after delivery, we may have albuminuria; and further, that in the slighter cases, both the convulsions and paralysis diminish with the decrease of the albuminous secretion. Whether, therefore, the paralysis be caused by the state of the kidneys, or the renal congestion and paralysis be both the result of some morbid matter in the blood circulating through the system, it is clear that a new element may be added to those which have usually been considered as giving rise to paralysis.

"Nor is this barren theory only; but, if it be true, it has a direct bearing upon practice, inasmuch as our attention ought not to be confined to the secondary affection of the nervous system in such cases, but must be directed to the relief of the renal malady, and to the restoration of the kidneys to such a state of efficiency as may

enable them to remove the morbid constituents of the blood ; and for our encouragement, we have seen that a diminution of albumen in the urine is followed by mitigation and cure of the paralysis. For the latter affection, bloodletting, general when the system will bear it, or local by means of leeches or cupping ; blisters, purgatives, and mercury, are the remedies usually employed ; these must be modified according to the condition of the patient, the circumstances of the attack, and the duration of the disease. When much blood has been lost during labour, bloodletting must be omitted, and we must confine ourselves to counter-irritation ; perhaps a series of small blisters to the neck, down the spine, or along the limb, will be the best mode of proceeding. The patient's strength must be supported judiciously by good diet, and it is quite possible that some stimulant, such as ammonia or camphor, may be necessary. When the paralysis has become chronic, strychnia or galvanism may be found useful ; and I believe Dr. Stokes has found galvanic acupuncturation very beneficial in facial paralysis.

"The renal disorder should never be treated by diuretics, but by external irritants, such as mustard poultices, or rubefacient liniments to the loins, and internally by diaphoretics, as suggested by Dr. Osborne,* of this city, and when more chronic, by gallic acid, iron, &c."

Treatment of Epilepsy.

Dr. R. B. TODD, in an interesting clinical lecture delivered at King's College Hospital, offered the following valuable practical observations on the treatment of epilepsy. In reference to the drugs which have been generally employed, he observes :—

"Most of these have been used in consequence of their exhibiting a certain amount of physiological influence on the nervous system. As to others, it is difficult to trace the circumstances which led to their admission among the *juvantia* in this disease. First in the list I would place those drugs which belong to the narcotic class—opium and its various preparations, belladonna, henbane, conium, camphor. These certainly exercise a very powerful influence in calming the excitable state of the nervous system which accompanies epilepsy. They are applicable chiefly to the more acute cases, and especially when epileptic delirium is threatened or present. You should never administer them except when you have full opportunity of watching your patient, or of confiding him to the care of another. This remark, I need hardly add, applies chiefly to Belladonna and the preparations of opium.

Belladonna has been greatly extolled by some French writers, far more than it deserves, as far as I can judge from my own experience. It is a remedy which leaves no permanent ill effect, and which, I think, is worthy of a more extensive trial in this country than it has yet received. That it exercises a physiological influence on the nervous

* On the Nature and Treatment of Dropsies, &c. 1837.

system, no one can doubt, who has administered it for forty-eight hours; but as it induces a state of pupil very like that which is so common in epilepsy, one might fear that it rather favoured the epileptic state. A good series of clinical observations are yet wanting upon the effects of this drug. The preparation chiefly used in France is the powdered leaves of the plant.

Opium is often useful in cases in which the fit is apt to occur in the night or early morning. A full dose given at bedtime will prevent the development of the fit.

The valerian was used formerly in epilepsy more extensively than now. It is a medicine, however, which should not be despised or discarded. Its use promises most in the complications of hysteria and epilepsy. Its virtue depends upon the presence of an oil or acid which is capable of entering into combination with metallic bases, as zinc and iron, and which also combines with quinia and other alkaloids. You may give it either in scruple doses of the powder two or three times a day, or in infusion, or as an ammoniated tincture, or in combination with quinia, or the metals.

Other nervine remedies may be added to your list, and you should keep them in reserve, to employ as occasion may require, such as musk, castor, assafetida, stramonium, sagapenum, garlic, remembering the moral influence of a change of drug. I cannot say that the evidence of any special power of an anti-epileptic nature in any of these drugs is at all satisfactory.

In this class of drugs you may place the Sumbul, of which a tincture is prepared by Mr. Savory, of Bond-street. One of the earliest cases in which I employed it, seemed to benefit very decidedly by it; and I have since used it many times with unequivocal good, so as to lead me to look upon it as a useful stimulant, and antispasmodic remedy.

Digitalis has been greatly lauded by some. It may act favourably, partly by its diuretic properties, and partly by its influence on the heart's action. There is quite sufficient evidence of its utility to warrant its being retained among the list of remedies applicable to this disease, and to justify its occasional cautious use.

The cotyledon-umbilicus may rank with *digitalis* as a remedy for epilepsy. I cannot say that I have met with a case distinctly benefited by its use; but the cases published by Mr. Salter, and those recorded by the late Dr. Graves, indicate that it possesses a certain anti-epileptic power. I incline to think it acts by a diuretic influence.

There are other drugs obtained from the vegetable kingdom, which, I think, deserve a trial in epilepsy. One of these is the *Achillæa millefolium*, which, in the form of a decoction, exerts a very decided diuretic influence. On the same principle, *taraxacum* may do good in certain cases, as in those in which the epilepsy has relation to gout in the system.

The alkaline salts, especially the bicarbonate and the nitrate of potass, appear to me often to be very useful on a similar principle, namely, by increasing the activity of the kidneys.

The *cardamine pratensis* was greatly extolled by Sir George Baker. Turpentine has been used chiefly from its anthelmintic properties. It is a remedy that should be used very carefully, and never, if there be suspicion of organic disease of the brain.

The *selinum palustre*, or *peucedanum montanum*, is highly commended by Herpin, on, as I think, insufficient grounds. The plant is very difficult to procure, and I have not yet been able to try it.

The various metallic tonics have been and are extensively used in epilepsy. Of these, the safest is zinc, the sulphate, or the oxide. Either of these preparations may be given without any disadvantage that I know of, for a considerable time, and in large doses. Some time ago I gave to a patient in this hospital as much as half a drachm of sulphate of zinc, thrice a day without any sensible effect. The dose had reached that amount by gradual increase. Whether these drugs exercise any special favourable influence, I am unable to say; all I know is, that, under their long-continued use, patients sometimes cease to be troubled with fits.

The various salts of iron are also applicable to the treatment of this disease, and especially to cases in which the blood is poor in hæmatin. But they are not so harmless as the salts of zinc. Their tendency in some persons to excite headache precludes their use with them; and they often disturb digestion, and on this account cannot be persevered with. The saccharine carbonate, the sulphate, the citrate, and the tinct. of the sesquichloride, as well as Griffith's mixture, are the preparations of iron which you will find most suitable to the generality of cases.

Salts of copper and of silver are also used for epilepsy, with, I think, at best, but very doubtful efficacy. To the cautious use of the ammonio-sulphate of copper, I see no material objection; in too large doses it may irritate the gastro-intestinal mucous membrane, but such irritation is easily removed.

There is, however, a much more serious objection to the use of the salts of silver. The nitrate and the oxide are the salts employed. Now, there is no doubt that the nitrate discolours the skin. We see repeated examples of this in the streets; scarcely a day passes that I do not recognize persons in the streets, as epileptics, who had been treated with nitrate of silver. If the nitrate of silver were a certain, or even a very frequent cure for this formidable disease, well and good; but, seeing that it is very far from being entitled to the credit of being such a remedy, I say, that we have no right to make blackamoors of our patients, and to stigmatize them forever as epileptics, and too often as *epileptics uncured*, on the mere chance of doing good by nitrate of silver. No doubt few would hesitate long between choosing a discoloured skin, and being the subject of a disease so fearful as epilepsy. But it seems to me, that the remedy ought to be a specific, to justify the practitioner in administering it, with the strong probability there is of producing such an effect. Remember, too, that the nitrate of silver stain communicated in this way, is probably indelible, and that, by an experienced eye, it is not to be mistaken. I have seen it after ten and fifteen years from the administration of the drug.

Finding, then, no special virtue in the nitrate of silver as against epilepsy, and that it is very apt to produce the serious result to which I have referred, with whatever care it may be administered, I have long since abandoned its use. I fear the oxide of silver is not more promising, either as to its influence on the disease, or its freedom from the discolouring power.

Indigo has likewise been given in epilepsy, but with no other result, as far as I can learn, than what Penil observed, that it turned the nails of his patients blue.

The time has, I think, now arrived, when we must look in another direction for an anti-epileptic remedy. We must turn our attention more particularly to those substances which are capable of being exhibited by inhalation, of being brought to bear upon the nervous system, without being subjected to the action of the gastric fluid.

Ether and chloroform, it is now well known, are capable of being taken into the blood in this way. Some years ago, I tried experiments as to their power of controlling the convulsions induced by strychnine, and with the result of finding that they possessed that power very completely. As long as an animal is fully under the influence of ether or chloroform, no convulsion can be produced. I was thus led to try their inhalation in epilepsy. I have chiefly employed for this purpose chloroform, because it is less disagreeable to patients to take. The results of my observations so far, are these—that in the more acute forms of epilepsy, the inhalation of chloroform has considerable influence in controlling and modifying the attacks; it has also a very decided power over epileptic delirium; and over some of the concomitants of epilepsy, as the violent convulsive jerks of the muscles of both upper and lower extremities, which are always most distressing, and often very dangerous. It has a marked and immediate power over puerperal convulsions; and I am glad to see that my friend, Prof. Simpson, of Edinburgh, sanctions, by his high authority, its use in such cases. It is also applicable, and with advantage, to the convulsions of infants, and to laryngismus stridulus.

There is no use in employing chloroform in epilepsy unattended by other symptoms, when the attacks are at uncertain times and at long intervals; nor do I advise you to attempt its use, unless the patient is fully under your control, or will heartily co-operate with you. And in cases where the heart is affected, either functionally or organically, it should never be used. Its inhalation, at two or three stated times of the day, exercises a very calming effect on the nervous system, diminishing its excitability very materially. But this must be carried on over a long period of time—many months, and even years; and the dose may vary from twenty to sixty minims, according to the effect produced, and you should aim at obtaining a gradual, not a rapid effect. The patient should always remain in the horizontal posture during the inhalation, and for at least half an hour after it.

You will expect me to say something on a proposal made within the last few years to open the trachea of patients suffering under severe epilepsy, with the twofold object of preventing the fits, or of

obviating their effect, in creating undue distension of the cerebral bloodvessels, if they should occur.

Before a proposition of this kind can meet with general favour from practical men, it must be satisfactorily proved that the hypothesis, or theory, if you will, from which the proposal emanates, is essentially sound: and next, it must be shown that the operation is in itself one that is not seriously dangerous to life; and lastly, it ought to be in the highest degree probable that the attacks will not recur after the operation has been performed. It is, as you know, contrary to all principles of sound surgery to perform an operation, unless it be for the complete removal of the disease, or, at worst, to stave off the reappearance of the malady to the latest period.

The hypothesis from which this proposal emanates assumes that the exciting cause of all the evil in severe epileptic paroxysms, is the contraction of the muscles of the neck and glottis, which induces and maintains a congested state of brain, which, in its turn, excites and keeps up the convulsions. I have elsewhere examined this congestion theory in detail, and I am not aware that the arguments which I then advanced against it have ever been fairly met. I have also shown, by experiment, that epileptic convulsions may be excited in dogs which had been freely tracheotomized previously, full provision having been made for the free ingress and egress of the air; and also in a dog in which the muscles of the glottis were paralyzed by section of the recurrent nerve. These experiments, the advocates of tracheotomy in epilepsy have found it convenient to ignore.

Again, I would ask, is tracheotomy either a very simple or a very safe operation? I do not think that the results of the operation either for other diseases, or for epilepsy, are very satisfactory. Patients often die from the effects of the operation; exhaustion, erysipelas, diffuse inflammation of the areolar tissue spreading into the mediastinum.

And lastly, what are the prospects that, the operation having been done, the evil will not recur? This can only be ascertained by that which I cannot recommend, frequent experiments. I would only make this remark: that those who have the courage to try these experiments, and feel themselves justified in so doing, must carefully watch the results, and endeavour to draw a proper distinction between the actual physical effects of the operation, and that mental influence which, as I have shown you in a former part of this lecture, undoubtedly tends to stay the disease, when any new treatment is adopted, or any considerable change takes place in the patient's position and circumstances.

But, gentlemen, let us look on, and watch the result of these operations in the hands of others. No one will be more ready to acknowledge himself in the wrong than I shall be, should it turn out that, in this proposal, an important remedy has been found for a most terrible malady.

In conclusion, I have to express my fears that I have drawn but a sorry picture of the power of our art to deal with this formidable

disease. But let not this discourage you ; and do not fall into the notion, nor countenance it in any way, that epilepsy is an incurable malady, and that epileptic patients may as well be abandoned to their fate. There is no doubt that some may be completely cured, many very greatly alleviated, and that all should, as far as possible, be the objects of medical scrutiny and care, with at least the object of finding out more and more of the natural history of the malady, and of the *juvantia* as well as the *lædientia* ; and with a hope that, at some time or other, a remedy may be vouchsafed to us, or at least that we may gain some insight into the intrinsic nature of this formidable scourge of mankind.—[*Med. Times and Gazette*.]

EDITORIAL AND MISCELLANY.

Remarks upon the use of Beverages in Sickness.* BY THE EDITOR.

Without intending for a moment to undervalue the importance of a judicious selection of the more active remedial agents in the treatment of disease, the writer nevertheless feels persuaded that much of the success of these, very often depends upon the use of proper adjuvants. The signal advantages frequently derived from the opportune administration of an enema, a foot-bath, cold affusion to the head, or even a cup of tea, broth, or gruel, must have been obvious to every discerning practitioner. And yet, it is only at the bed-side that the young physician can derive much information upon the subject, as these matters of detail cannot be or are not included in such works of general practice as are usually placed in their hands. Treatises and Lectures upon the general principles of Practice are unfortunately but little relished by students, while they read and listen with avidity to specific plans of treatment, and never fail to note down any *recipe* that may be proposed. The more violent, heroic and perturbing methods are, however, gradually giving way to milder and more judicious medication ; and palliatives consequently increase in importance. The skill of the practitioner will be found to consist more in the relief of existing symptoms, than in the prescription of special formulæ learnt by rote and aimed at a name.

The use of aqueous beverages, especially in acute affections, is now so common that it cannot be a matter of indifference whether the patient partake of the one or the other of the many varieties ordinarily resorted to. The belief that the water they contain is the sole agent of value in their administration, is too exclusive and prevails too

great a degree. By the ingestion of large quantities of water, and the great facility with which it is imbibed by the coats of the stomach and intestines, carried into the portal system, and from thence introduced into the general circulation, the blood is diluted and rendered less plastic, whilst the repletion of the vessels thus induced, gives increased activity to the emunctories—viz., the skin, lungs, and kidneys. The experiments of Magendie demonstrate very satisfactorily that the secretions are increased in a direct ratio with the repletion of the bloodvessels, and vice versa; that absorption is promoted in proportion to the diminution of the circulating mass. While, therefore, in the treatment of acute diseases, which are generally inflammatory, copious beverages are usually found to be useful, by diminishing the plasticity of the blood and promoting the elimination of noxious or effete principles, their propriety is very questionable when it becomes necessary to favor absorption; as is frequently the case in chronic engorgements, serous effusions, or other deposits. When venesection is practiced, the volume of blood abstracted is very soon replaced by water; whereas, by withholding such beverage, the partial vacuum of the vessels brings into them the circumjacent fluids with whatever disintegrated matters they may hold in solution. Thus it is that we may satisfactorily account for the agency of depletion and abstinence in the promotion of absorption. Yet it cannot be a matter of indifference whether the drink be acid or alkaline, stimulating or sedative, mucilaginous or acrid, laxative or astringent, nutritious or not. We resort daily to beverages which, in addition to the diluent property of water, unquestionably present one or more of the peculiarities just referred to; and we should endeavor to select such as may be best adapted to each particular case. A brief enumeration of some of those in common use, and an appreciation of their peculiarities, may enable us to present our views more forcibly. They may be advantageously arranged under distinct heads indicative of their most prominent properties.

DILUENTS.—Of all beverages, water, at the ordinary temperature of spring or well water, will be generally found the most agreeable, as well as the best, when the desired effect be simply to allay thirst or to dilute the blood. Indeed, the cravings of nature so strongly indicate the propriety of cold water as a beverage in the fevers of our climate, that one cannot look back without a sense of horror upon the time when patients were pertinaciously denied this luxury, notwithstanding their heart-rending entreaties; when they were compelled to linger through long attacks of sickness with parched lips and crack-

ed tongue, lest a sip of cold water might perchance disagree with the stomach, check the perspiration, or expose them to mercurial salivation! In no particular has modern practice displayed more good sense and humanity, unless it be in the abolition of chains and the lash in the treatment of Insanity, than in allowing the sick the free use of cold drinks, especially in Southern fevers. A draught of good cold water will often act like a charm, quieting the stomach, and inducing copious excretions from the skin, kidneys and lungs.

The facility with which ice is now procured in most of our towns has led to the very free use of iced water; and, however grateful and beneficial this may be in many cases, there are circumstances in which the propriety of its use is at least questionable. In irritability of the stomach, with or without phlogosis of this viscus, iced water very generally gives great relief; but in affections of the bowels we think it decidedly objectionable. In both diarrhœa and dysentery, its bad effects are almost immediately marked by the supervention of pain and a desire to go to stool. It should also be avoided in all colicky affections, whether partaking of the nature of obstructions, of spasms or of flatulency. In bowel affections we always give the preference to warm or hot drinks. According to our bed-side observations, iced beverages should be also avoided in pulmonary diseases and in affections of the head. We have frequently found them to induce paroxysms of coughing and dyspnœa in lung complaints, as well as pain and cerebral disturbance in affections of the brain, while tepid or warm drinks do not produce such effects. The rationale of such consequences is so evident as scarcely to need an explanation. The principle is here the same as that upon which we account for the injurious effects resulting from the exposure of one part of the body to cold when another part is predisposed to or actually suffering from inflammation. No one would think of plunging in iced water the feet of a patient laboring under affections of the bowels, thorax, or head; nor should the stomach be filled with iced water under such circumstances, although this organ may be benefitted by cold applications of the kind to its own surface when this is affected. The same remarks may be applied to acute affections of the skin, and old women are therefore not wrong in objecting to iced drinks in scarlatina, measles, and smallpox, however much they may err in insisting upon keeping the body excessively warm.

In the *cold* stage of our fevers we think warm drinks preferable to cold ones. They hasten the termination of the chill and bring on perspiration much sooner; and though they may be more apt to induce

emesis, the very efforts to vomit materially determine the circulation to the surface and consequently abridge the cold stage.

DEMULCENTS.—Under this head we may place all the mucilaginous infusions, as those of Flaxseed, Slippery-elm bark, Prickly-pear, Bene leaves, Gum arabic, &c. These are nothing more than diluents in combination with bland materials. They are regarded as especially appropriate in irritations, more or less intense, of the alimentary passages, of the respiratory organs, and of the urinary apparatus. Their use has been so long sanctioned by the Profession, that it is not without some hesitation that we intimate a doubt as to their real value, or rather as to their superiority over mere diluents. It can hardly be presumed that the gummy or mucilaginous materials they contain, pass into the circulation unchanged or without previously undergoing the digestive process. They cannot therefore be viewed as bland applications to any other than the surfaces of the digestive tube. Yet they are continually prescribed as though they were destined to reach unchanged the mucous surfaces of the lungs and urinary organs. We must confess that we have ourselves been so much in the habit of prescribing infusions of Slippery-elm and of Prickly-pear in affections of the kidneys, bladder and urethra, that we would dislike to abandon them, however much we may be led by theory to doubt their intrinsic efficacy and to attribute the relief to the water and other medicinal agents with which they are administered. We must also say that we, have never perceived any advantage in the use of demulcents, as such, in pulmonary diseases,—and that we really consider the one in most common use (flaxseed tea) often injurious, in consequence of the rancidity of the seed usually obtained from the shops, and the indigestibility of the infusion when made very mucilaginous, to say nothing of the unpleasantness of the dose. The other demulcents can be so readily procured in a fresh state, and are so much more agreeable, that we see no good reason for the very general use made of flaxseed tea.

The **AROMATIC** beverages are infusions of Mint, Balm, Sage, Catnip, Sassafras, &c. Their chief merit consists in being generally palatable and therefore well received by the stomach. In many instances they will relieve nausea, when this unpleasant symptom would be aggravated by demulcents. They are also decidedly anti-septic, preventing the evolution of gas by averting the tendency to fermentation, and improving the general tone of the digestive organs, without exerting injurious stimulation of the general system. They are particularly well adapted to Typhoid fevers and diseases of similar character.

Catnip tea is a favorite prescription of mothers for crying babes, under the impression that the cries always indicate the existence of colic and that catnip is a specific for this. It cannot be denied that the little creatures very frequently become quieted and go to sleep shortly after partaking freely of the well sweetened tea ; but whether this effect is to be attributed to relief from colic, to some anodyne or soporific property of the tea, or simply to the fact that this operates as a substitute for the nourishment the child required, remains to be determined.

Sassafras tea is not unfrequently used in the South as a substitute for Coffee and Hyson tea, and is certainly more palatable than either of these, when as wretchedly prepared as they are in many families. Sassafras has been long supposed to possess alterative properties, and has therefore entered into the composition of most of the so-called Diet Drinks. As we do not, however, profess to understand the true meaning of the term *alterative*, as used technically, and that we consider the Diet Drinks in common use as mere tonics or restoratives of the general stamina, we presume that Sassafras exerts a beneficial influence upon the digestive organs. And, yet, it is difficult to determine the origin of a prejudice which exists in the minds of many of our people against its habitual use, in consequence of its supposed tendency to the production of Intermittent fever. This prejudice is so general in Georgia, that it is supposed to have contributed largely, some years ago, to the defeat of a candidate for the gubernatorial chair, who had in Congress urged an increase of the duty upon tea and coffee, adding that if the enhanced price of these articles proved onerous to some, they might drink sassafras tea. The good people proudly refused to vote for any man who was willing to see them all take the ague and fever, merely for the sake of filling the National Treasury ! We believe the prejudice to be unfounded—but would like to know if any *facts* can be adduced in support of it.

ASTRINGENTS.—The only beverages in common use in disease which possess any astringency, are the Green and Black table teas and the Sage tea. This effect is, however, so slight as to be unimportant in general.

LAXATIVES.—We may class as such the infusions of Tamarinds, of dried Apples, of dried Peaches, of Raisins and of Cream of Tartar ; to which may be added Saratoga water. These are all more or less grateful and remarkably well adapted to a large class of our diseases, in which the intestines are disposed to be torpid. Those possessed of acidity promote an abundant secretion of bile as well

as of gastro-intestinal fluids ; hence their common use in warm climates.

ACIDS.—Lemonade and Orangeade are such general favorites in diseases of tropical climates, that they are in some of the West India islands considered as the most important medication in all affections implicating the hepatic secretion. As an antibilious remedy, Lemonade is held in an equally high esteem by the Creoles as Calomel is by the English, and those who borrow their views. Lemonade, besides being exceedingly grateful to the palate, is highly promotive of the mucous, hepatic, renal and cutaneous secretions. The free flow of salivary fluids excited by its contact with the mucous surface of the mouth and the orifices of the ducts that open upon it, will give some idea of its effect upon the gastro-intestinal surfaces and the glands whose ducts terminate in them. The capillary circulation of these mucous membranes and glandular structures must therefore be much relieved of congestion, if any exist. But besides this local action, Lemonade doubtless penetrates the general circulation by imbibition, and is carried to the kidneys and skin, whose secretions it manifestly increases. If the fluids of the system are alkaline, this is changed and they become acid by the free use of this beverage. Producing such decided local and general effects, it would seem more proper to class Lemonade among the potent agents of the *materia medica*, than among the mere adjuvants. We feel satisfied that the therapeutic value of Lemonade, in the treatment of our fevers, from the simple intermittent to the dreaded yellow fever, has not been fully appreciated by those who indite most of the books upon our shelves—the British and our Northern brethren.

ANTACIDS.—There are states of the system in which Antacids may be eminently useful, especially if taken largely diluted or in the form of beverages. The officinal Lime water, or small quantities of Bicarbonate of Soda, or of carbonate of Potass, may be thus used with plain water. The well water of blue limestone districts is sometimes of great advantage to dyspeptics. A very common error prevails with the non-professional public, who believe that soda enters into the composition of the beverage vended in our cities under the name of "Soda Water," which is nothing but water strongly impregnated with carbonic acid gas, and without any alkaline properties. The name of Soda Water had its origin in the fact that the carbonic acid gas was formerly obtained for the purpose by the action of acids upon the carbonate of soda, whereas it is now usually derived from marble or some other carbonate of Lime. By the addition, however,

of a little bi-carbonate of soda to this aerated water, a very pleasant and useful antacid beverage may be made.

SEDATIVES.—During the prevalence of the Broussaisian doctrine, which regarded nearly all diseases as abnormal irritations or inflammations, sedatives were eagerly sought after, in the vain hope that they would prove to be of general applicability. The distinguished French reformer, however, refused to acknowledge as such any other articles than Prussic acid and Asparagine. We may perhaps then be excused for placing under the head of Sedatives the infusions of the leaves of the Orange tree, the Lemon tree and the Peach tree, all of which we believe contain more or less Prussic acid. Be this as it may, there is no doubt that they are exceedingly valuable beverages in our autumnal fevers. The orange-leaf tea is remarkably palatable to most persons, and in addition to being a good diluent, diaphoretic and diuretic, has a soothing effect that can scarcely be appreciated by one who has not realized it in his own person. To secure its full influence, it should be taken freely when hot and just made (by pouring boiling water upon the fresh leaves), for it very soon deteriorates and becomes insipid. In the nervous affections of females, and especially in nervous head-aches, it often acts like a charm. The French make great use of the distilled orange flower water, a tea-spoonful of which they add to a glass of sweetened water;—but we think the orange-leaf tea equally valuable, and this is within the reach of every one who has a garden, as the orange tree grows finely in this region of country, and with less trouble than is required to keep the usual supply of balm, sage, &c.

The infusion of Peach tree leaves is peculiarly useful in cases of irritable stomach, whether occurring in our fevers or after a debauch. In such cases, however, it should be made strong and given in small quantities at a time; say a table-spoonful or two, frequently repeated. In cases of Hooping-cough, if given freely three or four times a day, it tends materially to lessen the violence of the paroxysms and the duration of the disease. We took occasion many years ago to allude to this use of it, and to recommend it in plantation practice as safe and valuable.

The last class of beverages to which we shall allude, comprehends those in which **NUTRITIOUS** elements are added to the diluent. The most common are water holding in solution Gum Arabic, Sugar and the various syrups, and teas made with Toasted bread, Rice, Barley, &c. The value and applicability of these beverages are so evident, that we mention them merely for the purpose of completing the subject.

Indeed we have extended our remarks so much more than we had intended when the theme first presented itself to our mind, that we now entertain serious apprehensions that the reader will be poorly repaid for the trouble of perusing them. We would accordingly withhold them from our pages, were it not that we still feel that the subject is one entitled to more attention than it has heretofore received, and that the imperfections of this hasty paper may induce others to do better.

We find in the October No. of the American Journal of the Medical Sciences, Reports—by Dr. Charles A. Lee, of an interesting case of Paraplegia, caused by Concussion of the Spine; by Dr. F. M. Robertson, of a successful case of operation for laceration of the Perineum; by Dr. Alexander Dunlap, of several cases of successful Ovariectomy; and by Dr. J. B. Brown, of a case of Epilepsy, treated by Ligation of the common Carotid Artery. The same number of this valuable quarterly contains an able paper upon Neuralgia, by Ch. W. Parsons, M. D., being the Fiske-Fund Prize Essay.

“A Farmer” writes to the St. Louis Medical Journal, that he has found Soda (probably the bi-carbonate) to relieve, very promptly, the stinging of insects, and snake-bites. The soda, moistened with water, is to be applied to the part.

In addition to the Physicians reported in our last, as victims of yellow fever in Savannah, it is our painful duty now to record the names of Dr. J. M. Gordon, Dr. A. B. Brantly, Dr. Saussy and Dr. Cullen.

The community for the relief of which men are willing thus to sacrifice their lives, ought, in accordance with the plainest dictates of gratitude, to provide pensions for the support of the bereaved families. Why should not the pension system be applied to such cases as well as to those which occur in the army and navy? We understand that services of Plate have been awarded (very properly) to the Physicians who magnanimously came from a distance to the relief of Savannah. Will nothing be done for the widows and orphans of those who nobly stood to their post until stricken down by the pestilence?

On Glycerin Lotions of Morphia, Strychnia, Veratria, and Atropia.—The importance of applying active medicines externally until absorption occurs sufficiently to cause their peculiar effects on the patient, has often been resorted to with great propriety in cases where their internal administration was rendered unadvisable from gastric derangement. Quite recently M. Soubeiran has proposed glycerin

as a vehicle for morphia, in lieu of the "oil of morphia" of M. St. Lager, and a writer in the *Bulletin Générale* takes advantage of this suggestion, and brings forward formulæ for similar preparations of strychnia, veratria, and atropia, under the generic title of "*Glyceroles*," or *glycerin lotions*.

M. Soubeiran's formula is as follows :

Take of Acetate of morphia,	three grains.	
Glycerin,	five drachms, <i>troy</i> .	Dissolve.

The *Lotion of Strychnia* is made thus :

Take of Sulphate of strychnia,	six grains.
Glycerin,	five drachms, <i>troy</i> .

Dissolve the salt in the glycerin in a porcelain mortar.

A teaspoonful of this lotion is applied by friction in paralysis of the limbs,—on the vertebral column in chorea,—on the temples in certain cases of amaurosis. It is necessary to remember that it is not the alkaloids but their *salts* that are soluble in glycerin, and when only the free alkaloids are officinal in the materia medica, as veratria or atropia, it is necessary to dissolve the organic base in a little diluted chlorohydric acid.

Lotion of Veratria.

Take of Veratria,	fifteen grains.
Diluted muriatic acid,	q. s.
Glycerin,	five drachms.

Dissolve and mix.

A teaspoonful applied by friction in chronic rheumatic pains of the joints, or in the sacro-lumbar region to relieve painful menstruation.

Lotion of Atropia.

Take of Atropia,	six grains.
Diluted muriatic acid,	q. s.
Glycerin,	two and a half drachms.

Dissolve and mix.

Forty or fifty drops applied by friction, repeated three times a day on the track of the sub and super orbital nerves, on that of the facial nerve, &c.—[*Jour. de Pharm. Amer. Jour. of Pharm.*]

Urinary Calculus formed upon a Leather Shoestring.—Dr. Brown, of Bangor, Maine, exhibited (to the Boston Society for Medical Improvement) the specimen, and reported the case. The patient was a man, æt. 27, and grossly addicted to onanism. Fifteen months ago he passed the string into the urethra after he had gone to bed, and went to sleep without removing it; in the morning it had disappeared. One or two months afterwards, urinary symptoms appeared; and these became so urgent, that he was obliged to give up work last autumn, and for some time past has kept his bed. About a week ago the calculus was removed by Dr. Rich, of Bangor, assisted by Dr. Brown; the lateral operation of lithotomy was performed, and the patient has done well since.

The calculus is of a regular, oval form, somewhat flattened, and measures nearly two inches in length. The chemical composition,

according to the analysis of Mr. J. C. White, student of medicine, is: "Phosphate and carbonate of lime—the latter being slight—with a slight trace of double phosphate of ammonia and magnesia. No uric acid nor urates in the portions examined." One extremity of the calculus having been broken away in the removal, the foreign body has been fully exposed.

Prof. Mussey, of Cincinnati, who was present at the meeting, mentioned a similar case in which he had operated, about two years since. The patient was a young man who had introduced (in accordance with medical advice, as he stated) a piece of cord into the urethra, for the purpose of allaying irritation. While introducing it, an unexpected occurrence surprised him, and caused a suspension of the operation, during which time the cord disappeared.

Dr. Mussey saw the patient three months afterwards, and was led from the symptoms to suspect the presence of a calculus in the bladder; at that time, however, it was impossible to detect any stone on examination by the sound. Two months later, a calculus was at once distinctly felt, and the operation of lithotomy was performed. The calculus extracted resembles a petrified lumbricus. The nucleus was the cord introduced, as above mentioned.—[*American Journal of Med. Sciences.*

Charcoal Coverlet for the Prevention of Smell from Gangrenous Sores.—In some cases of hospital phagedæna recently under his care, in St. Bartholomew's Hospital, Mr. Wormald made an ingenious and very useful application of the disinfecting powers of charcoal. It is well known that dry charcoal will effectually absorb any noxious or offensive gas which can be made to pass through it. On this power, Dr. Stenhouse's disinfecting respirators depend for their efficiency. The difficulty in applying it in hospital practice has, however, arisen from the difficulty of keeping it at the same time dry and in a uniform layer around the part giving rise to effluvia. Dr. Wormald's plan consists in sprinkling freely between two sheets of cotton wool a tolerably thick layer of powdered charcoal, and then "quilting" them together in small segments, so that the powder is retained securely in its place. The pads thus prepared may be of any size, according as required to wrap round the end of a stump, or to cover a superficial ulcer. The sloughing sore having been dressed in the ordinary manner, and a little lint or wool so placed as to absorb any discharge which may flow, over all is laid the charcoal quilt, which is then lightly confined by a bandage. It forms, in addition to its disinfectant properties, a very soft and comfortable envelop, more especially if the sore be in such a part that the patient is obliged to lie on it.—[*Medical Times and Gazette.*

✂ MEDICAL COLLEGE OF GEORGIA.—The Course of Lectures in the Medical College in this City will not be commenced before the third Monday in November—in order that Students may feel entirely safe in coming.

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ORIGINAL AND ECLECTIC.

ARTICLE XXXV.

Typhoid Epidemic Dysentery. By J. A. LONG, M. D., of
Long's Cross-roads, Tennessee.

From the wide-spread prevalence of this scourge, and its fatal tendency, I feel it a duty to contribute my might of experience on the subject. About the 20th of May, 1853, I saw the first cases of this epidemic, whose increase and spread were rapid and fearful, until about the middle of June, when it began to decline, and had pretty much ceased by the last of July. There were sporadic cases through the fall and winter, and some few cases became chronic, and lasted for months, until the disease wore itself or the patient out. It again commenced its ravages in the present year, about the first of June, and is yet, up to the present time (Sept. 20th), prevailing to some extent.

Symptoms.—The onset of the disease, in certain cases, was not unlike most acute diseases, preceded by premonitory symptoms of a disordered state of the stomach and bowels, wandering pains in the abdomen, or a sense of fullness, weight or oppression in the epigastric region; in other cases the attack was sudden and violent, in the form of a *cholera-morbus*, quickly followed by the bloody discharges. At other times the onset was no less rapid with bloody evacuations, mucous, or mucosanguinolent matter, attended with *tenesmus* and *tormina* from the first. But a large proportion of cases were gradual and

slow, without a chill or even a sense of coldness; little or no fever—in fact, many cases had no appearance of fever from the onset to their termination, whether in recovery or death. In this latter class there was little complaint of pain in the abdomen or elsewhere. In some cases (particularly in the robust) the inflammatory symptoms ran high, attended with severe head and back ache; pain in the back was one of the most constant symptoms attendant on the disease. The discharges were sometimes scant, of mucus and blood, or *blood* and *serum*, resembling *beef-brine*, and these *briny* discharges were attended with more *tenesmus* and *tormina* than any other character of the discharge. Alternately with the above character of evacuations there would be passed fecal matters of various appearances, from *pitch-black* to a natural yellow. These dark discharges were very common and copious on the approach of convalescence, and were always looked upon as a favorable symptom. More or less soreness was always present in the abdominal region, more especially if pressure were made; sometimes tympanitis, though rare. The tongue was always more or less coated by a white, yellow, or brownish fur, with its tip and edges more or less red, or of raw beef appearance. This latter aspect of the tongue only existed where there were decided symptoms of *gastritis* or *gastro-enteritis*. I have seen no cases where the disease of itself ran into *gastro-enteritis*—only such as had undergone a rigid course of *mercury*. The present year we have had some cholera in this section, and many severe cases of flux were attended with decided choleric symptoms, such as *cramps*, cold sweats, great heat, and excessive thirst. In one case the rice-colored discharges supervened copiously. Another variety of cases occasionally met with, I denominated the bound cases, from the extremely small quantity of blood discharged; sometimes small mucous stools, slightly streaked with blood, once or twice in the twenty-four hours—the patient being obstinately bound unless under the influence of a purgation, at which time the stools were generally large and always dark. These cases were attended with the usual amount of abdominal pain, *tenesmus* and *tormina*. I attended one of this class of cases which proved to be very tedious; had all the characteristics of a common case of *flux*, save the bloody dis-

charges, no traces of which were ever seen in the evacuations, notwithstanding there were *tenesmus*, *tormina*, and almost continual abdominal pain.

The pulse in many cases varied slightly from the natural state; in others it was accelerated more or less, according to the amount of fever present. In many cases it was of a typhoid character; but in none did I find it full and strong or bounding, or what I really considered a bleeding pulse. The bound variety of dysentery, towards the decline of the disease in the summer of '53, greatly predominated, and so gradually emerged into a common bilious fever, that the diagnosis was not very easy in the onset of many cases. The epidemic the present season is more uniformly spread over the whole country, and less in certain localities, than in the summer of '53. Two or three cases of *congestive chill* also occurred in this section since the appearance of the epidemic dysentery—probably the first cases that ever occurred in McMinn county. Bilious colics, and inactions and congestions of the liver have been exceedingly common the two last seasons; also, congestive determinations of blood, carbuncles, &c. Horses, cattle and hogs, suffered to some extent, and some deaths from a disease to all appearance identical with the *flux* with which the people were suffering.

In giving a history and treatment of the Epidemic Dysentery that has prevailed among us the two past seasons, I shall confine myself to facts I observed myself, and leave the reader to his own thoughts and inferences. The disease has been wholly unlike any that ever prevailed in this section of country: strictly a *typhoid flux*—denominated *congestive flux* by one of our most eminent practitioners (Dr. Cooke, of Madisonville, Meriwether county). The fact is, the disease is both *congestive* and *typhoid*. It has not been confined to age or sex; but all have been equally obnoxious to the fell destroyer, from the infant at the breast, to the most athletic and aged of the land. In one case only were the bloody discharges followed by a very singularly looking white, glairy, tenacious discharge, which was accompanied by prostrating cold sweats, &c. Of the *diagnosis* of this disease nothing need be said, as it would be hard to mistake it for any other.

Prognosis.—When the discharges became less frequent, more scant, and mixed or alternated with fecal matters, more especially if they were of a dark, bilious character, it was always a favorable symptom, and more especially if they were accompanied with a fuller and slower pulse; but this was not always the case, for bilious discharges were in some cases occasionally seen throughout the entire course of the disease, which terminated fatally: such was generally the case when *mercury* was used freely in the treatment. In children, drowsiness and general languor, accompanied with cold extremities, indicated great danger; and in general the disease has proved much more fatal in children than adults. The most unfavorable symptoms in adults were a stubborn persistence in the discharges—these becoming more frequent, darker, red, and more offensive; sinking and softening of the pulse, wandering delirium, prostration, &c. In many grave cases, especially in children, the extremities were cold from the onset, which indicated great danger.

Treatment.—From the obvious symptoms of bilious derangement, I cautiously attacked the disease with small doses of calomel, combined with Dover's powders, and sometimes ipecac and sugar of lead, variously combined. But I quickly found that I was not only doing no good, but most certainly aggravating the complaint. I then tried, in succession, almost every remedy reputed to be a curative in dysentery, until the whole catalogue was exhausted, with but little or no benefit. I now determined to give opium and its various preparations a fair trial, before condemning that most excellent drug. It was used alone, both by the mouth and in the form of suppositories and injections, in large doses, from 1 to 3 grains, every two or three hours, according to the urgency of the symptoms, and large suppositories after every discharge. To my great surprise and gratification, it almost completely controlled the *flux*. Dr. Cheyne says, that had he to go over his practice again in dysentery, he would not hesitate to give opium in 4 or 5 gr. doses, as it was the opium that he did use that appeared to arrest the inflammation. Dr. Christison expresses the belief, that the cure of epidemic dysentery may often be effected by opium alone. (Cyclopædia Pract. Med., vol. 1, p. 727.) This latter opinion coincides with my own experience in the present epidemic of

dysentery in this section of country. In addition to the free use of opium, I found the warm bath and warm fomentations to the abdomen, excellent adjuvants in the treatment of the more grave cases. In some instances the hip-bath alone was used; in others, the patient was repeatedly bathed up to the axilla, and suffered to remain from fifteen to thirty minutes. In cases of moderate severity, nothing was used but the opium, and sometimes that in the form of suppository. This drug was seldom used any other way with children, after every discharge. If the attack commenced with, or was preceded some days by a diarrhœa, I commenced at once with the use of opium. If small bloody discharges characterized the attack, I had the alimentary tube cleared by a dose of oil or salts, before using opium. Afterwards it was sufficient to give salts or castor oil in small and repeated doses to move off the contents of the upper portion of the bowels. Notwithstanding there was manifest biliary derangement in a majority of the cases, I do not believe in the old doctrine of *inaction* of the *liver*, and *congestion* of the *portal circle* being the cause of the disease. The disease, as it showed itself in this country, was purely an *idiopathic* affection, and called loudly for means to be directed to the local disease, of which nothing was so happy in its effects as opium, and its preparations. I have met with no case in which the opium was contraindicated, notwithstanding I saw many in which the fever ran high, the pulse was quick, and the pain in the head severe, &c. In such cases, I did not hesitate to administer the opium, in *full* doses, with the happiest effect. It never failed, in my hands, when given in sufficiently large doses, to lower the pulse, and make it more full—ease the pain in the head as well as abdomen—lessen the discharges, and induce sweating.

In this way I treated, this season and last together, two hundred and forty cases, of all ages and sexes, and of every variety above mentioned, and lost eleven, or five per cent. In a few cases, where the symptoms were not urgent, and the liver appeared to be inactive, the blue pill was used in connexion with the opium with good effect.

I have already lengthened out my remarks too far, or I would give cases illustrative of these different varieties and complications of dysentery.

ARTICLE XXXVI.

Surgery, in the Country. By E. G. HARRIS, M. D., of Carroll county, Mississippi.

Physicians living in the country are seldom called on to perform surgical operations, in consequence of which they are apt to become rusty in this branch, and are generally very badly provided with instruments. Notwithstanding this, they sometimes have to take the place of the surgeon, and have to operate with such instruments as they may have, and often have to manufacture them. Having performed a few simple operations, and most of them without the right kind of instruments, I thought I would report them, and show that, although performed with the pocket-knife, they do as well as when done with more costly instruments.

In the winter of 1845, I was travelling in the steamer *Enterprise*, on the Yazoo river, on my way to New Orleans, when one of the deck hands had his great toe dreadfully lacerated; the skin and tissues for an inch above his toe were torn loose and peeled down to the first phalanx, which was dislocated. The skin was still peeled off further down to the middle joint, leaving a little cuticle on the under side. After carefully examining the case, I was perfectly satisfied it would have to come off. Having no instruments with me, I procured a razor, and amputated his toe at the dislocated joint, where it is attached to the foot. Having nothing to cut but the inferior integuments, it bled but little. There was no flap to draw over the stump. I dressed it with adhesive strips, and in six weeks it was well, except a small scab over the end of the bone. He had received his injury by placing his foot inadvertently in the fly-wheel of the boat.

In 1846, while practicing on the Yazoo river, in this State, a Mr. Chapman brought me his little son, six years old, who had not made water for twenty-four hours. I found the penis swollen about an inch back from its end, and felt at this place something very much like a pea, or a bean in the urethra. I could introduce a catheter to this point, but could get it no farther. I introduced a very small pair of tweezers, and could get a slight hold on the substance; but they would invariably slip

off whenever I attempted to grasp it. After vainly using every means I could think of for more than an hour, I plainly saw it would have to be cut out—so we laid him on a table, and while two men held him, I drew the penis back on the pubis and made an incision into the urethra about half an inch long down to the substance; I then took hold of the object with the tweezers and lifted it out very easily. It was a calculus, about the size and appearance of a large white coffee grain; was rather rough; flat on one side, and round on the other; $\frac{1}{4}$ of an inch long, and $\frac{1}{8}$ inch wide; firm, hard and compact; weight 22 grs. I dressed the wound with an adhesive strip, and he went out and made an enormous quantity of urine. This operation was performed with a common pen-knife.

On the 28th of October, 1849, in Fayette county, Alabama, I was called a distance of seventeen miles to see R. S., a farmer, in his 42d year, and of bilious temperament. He had phymosis from infancy, for which no operation had ever been performed. It had at no time ever troubled him until about two weeks previous to the time he called on me, when he felt some itching and soreness under the prepuce. By degrees inflammation and swelling came on; pus began to ooze out from between the prepuce and glans, and it was with difficulty he could urinate. When I saw him on the 28th, the prepuce and glans were enormously swollen; he was in perfect agony, enjoying scarcely any rest, day or night. I gave him an anodyne, and directed him to keep soothing applications to the sore, and promised to come back with assistance on the 30th. and try to relieve him by an operation.

Accordingly, myself and Dr. S. B. Abernathy went to his residence prepared to operate. We found him pretty much in the same condition he was at my first visit. Having no chloroform, I gave him $\frac{1}{2}$ gr. of morphia. As soon as he got under its influence, I introduced, with a good deal of pain to him, a grooved probe on the right side of the penis, between the glans and prepuce; I then ran a sharp-pointed bistoury along the groove and split the prepuce up to its attachment; I then operated on the left side in the same way, and turned back the flaps. There was but little hemorrhage; nearly one half the glans penis was destroyed. We enjoined perfect rest, light diet, and

the bowels to be kept open by epsom salts, and dressed the penis with lint, kept constantly wet in cold water.

On the 21st of November he sent after us again, and requested us to bring with us our instruments, as he expected we would have to *cut it off*. We accordingly went, and found him much worse. The flaps were swollen a great deal more, and ulceration both of the prepuce and glans had advanced rapidly since our last visit. The glans was nearly all gone, and the inflammation and swelling had extended nearly to the root of the organ. In viewing the case as to its probable result, we came to the conclusion it would be best to amputate it, and therefore, in the presence of Drs. Morton and Black, and another person, we laid him on a table, placed him completely under the influence of chloroform, and performed the amputation in the usual manner, at an inch and a quarter from the body. I took up the arteries and dressed the wound with cold water dressings. He did very well until the 24th, when the ligature came off the largest artery, and he bled considerably before he was aware of it. I tied the artery again. On the 26th, the ligature came off a second time, and I was again called, and I could not now get hold on the artery. I applied the actual cautery, which effectually arrested the hemorrhage. He then continued to improve, and in two months was quite well.

In the spring of 1850, he made a crop, and enjoyed as good health as ever he did in his life. In June, he felt some soreness and enlargement of the glands in the left groin. They continued to enlarge and increase in soreness until about the first of July, when the cuticle gave way, and the ulcerated glands discharged a large quantity of pus, mixed with blood and water. On the 23d of this month, I was called to see him, and became satisfied the case was cancerous, and informed him that I was fearful there could be but little done for him. The edges were rough and ragged, and discharged a very offensive, watery, bloody matter; the ulceration continued to enlarge and get deeper. I tried a little of almost everything to satisfy him, but nothing did him any good. Faith and Cancer Doctors promised to cure him in a week; but they left just before he got well, and reported that they had cured him *wherever they went*. He became emaciated; lost his appetite; the glands in the other

groin began to ulcerate—when, one day in December, just after having dressed his wound with a little simple cerate, and eaten a little dinner, he felt his left hip and side unusually warm where he lay in bed; he raised the cover, and discovered a puddle of blood some two inches deep; he called to his family—became sick—fainted, and never recovered. Thus he died, after nearly a year's intense suffering, by the rupture of a large blood-vessel.

In July, 1852, I was sent for to see a young man in his 18th year, who had been accidentally shot by an uncle; but could not go. Another physician was called, who could do but little more than give him a purgative. On the twenty-second day from the time he received the shot, I was in his neighborhood, and he came to see me. The rifle ball (about 60 to the lb.) had entered his right breast, about an inch and a quarter below the right nipple, passed through the body, and lodged against the skin, close to, and on the left of the spine, and about an inch lower than where it went in. He suffered with paralysis of the leg for some four weeks, and an occasional shooting pain in that ankle. I cut the ball out with a razor, and he gradually recovered, and is now quite well.

He was running in a bent position, nearly in the direction to the one who shot him at the time he received the wound. How many could be shot through in the same place, and get well? Was not his position of being bent forward at the time he received the shot favorable to his recovery? At the crack of the gun he fell, and had no power to use his lower extremities for several days, showing the spinal marrow had suffered considerably. In about five days he recovered the use of his right leg entirely; but not of his left, for some time after I took out the ball.

ARTICLE XXXVII.

A Case of Poisoning. Reported by M. A. MILNER, M. D., of Fairfield, Texas.

DEAR SIR—The comparatively rare occurrence of poisoning by Hydrocyanic Acid, or preparations containing it, as Cyanide, or Cyanuret of Potassium, is admitted; yet it does sometimes

occur, and this induces me to report the following case, with the hope that it may elicit further enquiry for a certain antidote, and the proper management of such accidents.

On the 6th inst. (October), Col. W.'s little daughter, Fanny, three years old, in company with others, visited a Daguerreian Gallery, in the second story of my office. While the artist was preparing a plate, one of the ladies gave the child (for water) a solution of the chloride of silver and cyanide of potassium, used to galvanize plates. The mistake was discovered immediately, and the child brought into my office, with the cry—"Do something quick! it is poisoned with the Chloride of Silver." One glance revealed to me the truth of the alarm. Her face was flushed, her breathing slow and sterterous, and she was apparently insensible. With all possible haste, I tried a mustard emetic, but found she could not swallow, and immediately resorted to the stomach pump, and succeeded in drawing off a good portion of the fluid contents of the stomach. It being a short time after dinner, however, the imperfectly chewed and undigested bits of meat, &c., would fill the eyes of the tube, and prevented as effectual an emptying of the stomach as was desired, I then forced salt water into the stomach, but to no purpose, for the child was *dead*.

The length of time from the drinking of the poison, until the last gasp for life, was between four and five minutes.

None of the antidotes, as laid down by authors, were used, such as chlorine water, ammonia, cold water, &c.

In conclusion, I would respectfully ask, where such prominent poisons are taken, and the paralytic effect on the nervous system so instantaneous, should emetics, or the stomach pump, be thought of for relief? or should we depend upon inhalations and the administration of antidotes.

The composition of the poison was about $\frac{3}{4}$ iv. Cyanide Potassium, $\frac{3}{4}$ i. Chloride Silver, and three pints water.

Report "on the relative value of Lithotrity and Lithotomy."

Presented to the Medical Society of the State of Georgia, at its last annual meeting, by L. A. DUGAS, M. D.

The subject assigned us for elucidation, as above enunciated, is by no means one of easy solution, for, in order to render the comparison of different plans of treatment at all satisfactory, we should first be prepared to admit that they are applicable to the same cases, or to the varied forms and circumstances in which the disease may be found; an admission which cannot be made in the present instance. Equally valuable in cases adapted to each particular operation, they cease to be so under different circumstances. While Lithotomy is alone advisable or practicable under certain conditions of the case, there are others in which it were unpardonable not to give the preference to Lithotrity.* A case in which Lithotomy would be attended with comparatively little danger, might be made much worse by a resort to Lithotrity; whereas another in which Lithotrity would be harmless, would become very serious if treated by Lithotomy. As well might we attempt to determine the relative value of Mercury and of the Iodide of Potassium in the treatment of Syphilis, in certain stages of which the one would be as baneful as it would prove beneficial at other periods of the disease; and vice versa.

We are aware that some of the enthusiastic advocates of the one or the other of these methods for the removal of vesical calculi, have from time to time invoked the aid of statistics to demonstrate the relative success attendant upon the performance of these operations; but after all, these researches have been exceedingly unsatisfactory. As Lithotomy is the only operation justifiable in some of the worst cases of stone, and Lithotrity the proper one in recent and uncomplicated cases, it is not to be marvelled at that the former should have proved oftener fatal than the latter procedure, in the hands of those who conscientiously practice either the one or the other according to the exigencies of each particular case. What would be the result if any one were so injudicious at present as to resort exclusively to Lithotomy or to Lithotrity in all cases indiscriminately, we cannot determine. It is true that we have some knowledge of the results of Lithotomy prior to the discovery of Lithotrity; but we know of no instance in which any practitioner of note or of extensive opportunities has treated all cases

* We retain the word *Lithotrity* in the sense used by the Society, in preference to adopting, as is suggested by some, the term *Lithotripsy*. Although the latter may be, etimologically, more correct as the operation is now performed, there is a manifest inconvenience in multiplying technicalities.

indiscriminately by Lithotrity, for even Civiale, Amussat, Leroy, Heurteloup, and Costello, the strongest advocates of Lithotrity, do not hesitate to cut such cases as they deem inappropriate to their favorite method. To be, at this enlightened day, the exclusive champion of either operation, would indicate a disregard of the plainest inferences of reason and a recklessness of human life entirely unworthy of the high calling of the Surgeon.

Under existing circumstances, then, we propose to point out the relative advantages of these operations in such cases as are equally adapted to both, and, subsequently, to indicate the conditions in which either the one or the other should be preferred.

In cases equally favorable to either operation, Lithotrity possesses the following advantages over Lithotomy :

1. It is a much less alarming procedure ; there is nothing repulsive in the instruments, which are constructed upon beautiful mechanical principles, and evidently calculated rather to avert than to give pain. Instead of subjecting the patient to the terror of being bound hand-and-foot in a most uncomfortable and humiliating position, he comes forward unshackled, and submits with the cheering hope of relief by a bloodless operation.

2. The operation is intrinsically less painful. With dexterity on the part of the operator, it may be performed with very little inconvenience ; whereas no degree of expertness can render Lithotomy otherwise than extremely painful. It is true, that the discovery of anæsthetics lessens the force of this argument very materially : but while it prevents the evil effects of the shock of pain upon the nervous system, it adds an element of danger not to be entirely disregarded.

3. The bladder is more easily entered by the Lithotrite than by cutting instruments. The Lithotrite is passed through a natural opening with comparatively little difficulty ; whereas, the bladder can only be reached, through the perineum, by a complicated process, requiring intimate anatomical acquaintance with the region, and the most complete self-possession on the part of the Surgeon. The introduction of an instrument into the bladder per urethram completes an important stage of Lithotrity ; but is only the preparatory step towards the operation of Lithotomy.

4. By Lithotrity we avoid the danger of hemorrhage, primary and secondary, to which some of the French authors attribute one fourth of the deaths that occur after Lithotomy. The most skillful Surgeons have sometimes wounded the bulb of the urethra, the internal pudic and the hemorrhoidal arteries, thus giving rise to serious or fatal accidents. Cases are on record

of deaths even from the opening of the transverse artery of the perineum, which is necessarily done in all such operations. But, if it be urged that such accidents might have been avoided by more prudent and dexterous operators, we may reply that there are sometimes anomalous dispositions of the blood-vessels which cannot be known to exist before the operation, and in the avoidance of which, therefore, skill is unavailing. A danger that no skill can avert is not easily overrated. Hemorrhage, it must be confessed, may be consequent upon Lithotrity; but it is here rarely, if ever, fatal.

5. We incur no risk of injuring the rectum in Lithotrity—a very serious accident.

6. There is much less danger of urinary infiltration. Yet, this may occur in Lithotrity in consequence of laceration of the urethra by a bit of the calculus adhering to the instrument when it is withdrawn—or by the efforts made to extract a fragment lodged in the urethra. But this is extremely rare in comparison with the accidents of Lithotomy, and not so apt to prove fatal.

7. Phlebitis and purulent infection are more common after Lithotomy than Lithotrity.

8. There is no danger of urinary fistula, which occasionally results from Lithotomy.

9. Lithotrity does not necessarily confine the patient to bed after its performance, and may in many instances not interfere with the pursuit of his usual avocations.

In enumerating the advantages of Lithotrity, we ought not to omit the very important consideration, that, if it were more generally practiced, and its merits better understood by the people, no one would suffer long from calculous affections, without applying for relief; and by thus early invoking professional aid, the cases would not become so complicated and aggravated as to render Lithotomy preferable. The patient would come to the surgeon before the stone had acquired such dimensions as to preclude Lithotrity; the bladder would not have become the seat of dangerous lesions; the general health would be comparatively unimpaired; and every thing, in short, would be found in the most advantageous condition for easy and successful Lithotrity. Lithotomy, instead of being, as it is now, generally preferred in the majority of cases, would be resorted to only in exceptional ones.

Let us now see what are the intrinsic advantages of LITHOTOMY, in cases EQUALLY ADAPTED TO EITHER OPERATION. We find, in the first place, that it is more promptly effectual; in the second, that it leaves the subject less liable to recurrence of the disease; and in the third, that it can be performed with instru-

ments less complicated, less liable to be made of bad materials, and more easily procured by the mass of practitioners.

Lithotomy is more promptly effectual, because the bladder is by it at once relieved from a source of irritation more or less injurious to the whole urinary apparatus and to the system in general, at the same time that the inconveniences and accidents attendant upon the discharge of calculous concretions through the urethra, after having been crushed by the Lithotriptic instruments, are obviated.

That a recurrence of the disease is less frequent after Lithotomy than after Lithotrity, seems to be generally conceded; and it is even affirmed that relapses are six times as frequent after Lithotrity as they are after Lithotomy. From the data furnished by Mr. Coulson, (*Lithotrity and Lithotomy*—London, 1853—p. 88.) we find that in an aggregate of seventeen hundred and forty-seven cases of Lithotomy, relapses occurred thirty-eight times, or once in forty-six cases. According to M. Civiale there were fifty-five relapses in four hundred and forty-eight cases treated by Lithotrity, or one in ten cases—showing relapses to be four and a half times as frequent after Lithotrity as after Lithotomy. The difficulty of getting RELIABLE statistics on this point is so obvious that we place little confidence in the correctness of the above figures, except so far as they indicate the number of REPORTED cases of relapse. We cannot regard them as establishing conclusively that all the relapses which took place, were necessarily known and recorded by the reporters. The more frequent recurrence of stone after Lithotrity, is probably owing rather to the incomplete extrusion of all the fragments (thus leaving a nucleus for additional deposits) than to any difference in the effect of the operation upon the calculous diathesis. Yet, the section of the neck of the bladder in Lithotomy, may, perhaps, more readily than Lithotrity, tend to heal a morbid condition of this viscus favorable to the formation of calculous concretions. Still another explanation presents itself: inasmuch as the peculiar condition of the urinary secretion, upon which such concretions usually depend, may be changed after a certain time, the longer the operation is deferred the greater will be the probability that the calculous diathesis has ceased to exist. Lithotrity is most frequently resorted to in cases in which the disease is of comparatively recent date, and may therefore be done before the subsidence of the diathesis, and consequently, be followed by a relapse, even though every vestige of calculus may have been passed off after the crushing. Lithotomy, on the contrary, is performed in all such cases of long-standing as have become unfit for Lithotrity, and in which it is exceedingly probable that the constitutional diathesis has changed.

It is to be regretted, that we possess no correct data by which these considerations might be tested. We would require for this purpose, statistical information as to the relative proportion of relapses, after both Lithotomy and Lithotrity, and also a specification of the age of the patient, the duration of the disease, the degree of relief experienced after the operation, and the length of the interval between the operation and the relapse.

The instruments required for the performance of Lithotomy are exceedingly simple, and may be readily procured by any one who may desire to use them; whereas, it is more or less difficult to obtain those for Lithotrity of sufficiently good workmanship and tried metal, to be safe. Indeed, there are few Surgeons who would feel justified in using any other Lithotritic instruments than those made by the distinguished Charriere, of Paris, or Weiss, of London; for the success of the operation and the safety of the patient, are as much dependent upon the perfection of the instruments as upon the skill of the operator. Again, the same Lithotrite cannot be adapted to all cases, and it therefore becomes necessary for the Surgeon to keep a variety of them, in order to be prepared for any emergency. This can scarcely be expected of the mass of practitioners, and consequently limits the performance of this operation to the few who may be more favored by circumstances. It is true that these considerations ought not strictly to be urged against Lithotrity; yet, they certainly account, to some extent, for the rarity of this operation in comparison with Lithotomy. While Lithotrity has as yet been performed by very few Surgeons in the United States, Lithotomy, on the contrary, has been and is daily being resorted to by a large number of our Physicians.

Having now enumerated the relative ADVANTAGES of Lithotrity and Lithotomy, in cases equally adapted to both operations, the task of setting forth their DISADVANTAGES becomes comparatively easy; for the arguments in favor of the one, constitute so many objections to the other.

To Lithotrity, then, it may be objected that it very rarely relieves the patient of his troubles at one sitting; that these, on the contrary, must usually be repeated more or less often, and at intervals more or less great; thus consuming time, to the serious inconvenience of the patient, especially when away from home. Parents who bring their child from a distance are usually impatient to return, and will prefer the more speedy result of Lithotomy to the more tardy progress of Lithotrity, especially now that the painfulness of the former may be mitigated by anæsthesia.

The frequent repetition of Lithotrity, necessary in some cases, may so aggravate the irritation of the bladder as to forbid its

continuance, and occasionally to prove fatal. Each application of the Lithotrite is sometimes followed by considerable constitutional disturbance, which may not be renewed too often with impunity. In such cases the operation would have to be discontinued, and Lithotomy resorted to.

The manipulations in Lithotrity require a degree of dexterity and familiarity with the instruments that can only be attained by much practice upon the dead body and experience upon the living; whereas, any one who has the requisite anatomical knowledge and self-possession may perform Lithotomy tolerably well. An unskillful hand may seize the bladder with the Lithotrite, and thus do much mischief. However careful and expert the operator may be, fragments of the calculus will sometimes become so fixed in the blades of the instrument that these cannot be closed so as to permit the withdrawal of the Lithotrite; or, if the fragments are not so large as to prevent the withdrawal of the Lithotrite, they may produce laceration of the urethra and the danger of urinary infiltration; or the instrument may be broken in the bladder, and thus render Lithotomy indispensable. The difficulty of procuring good instruments of Lithotrity has been sufficiently adverted to. We have also seen that patients are more liable to a return of the disease after treatment by Lithotrity than by Lithotomy.

The objections to Lithotomy are very serious. It is infinitely more alarming to the patient than Lithotrity. With fear and trembling, he presents himself to the Surgeon with more apprehension than hope, with the terrors of an operation ever regarded as one of the most dreadful in Surgery, and with the uncertainty of surviving it. He comes, in short, after having suffered until life has become intolerable, and submits to the pain and risk of the operation as a *dernier resort*—as the last sad alternative of a man doomed to die unless this can afford relief. Nor are the preliminary steps for the operation calculated to change his feelings; for, although assured that by the use of anæsthetics he will be prevented from experiencing any pain, the strong bands by which his limbs are pinioned indicate but too unequivocally the writhings thus sought to be obviated.

In order to reach the bladder through the perineum, the patient has to be subjected to a wound in itself of dangerous character, even under the most favorable circumstances. Arterial and venous plexuses may be opened and give rise to alarming or fatal consequences; the rectum may be cut; the incision of the prostrate may prove to be too small for the passage of the stone, and require to be enlarged; and, finally, infiltration of urine may take place in consequence, according to Prof. Pattison, of injury to the vesical reflection of the pelvic fascia.

In the extraction of the calculus, some difficulty is occasionally experienced, in consequence of the contractions of the bladder, or of the position of the stone; the prostate and neck of the bladder may be seriously contused or even lacerated by the irregular surface of the stone, or because of the smallness of the opening made with the knife.

After the operation has been completed, the patient has to be confined to bed, and is there liable to suffer from the flow of urine over a raw surface, from phlebitis, from purulent infection from peritonitis, and finally from secondary hemorrhage. The shock to the nervous system, even notwithstanding anæsthesia, will occasionally take off a patient when least expected, as may be seen in a case reported by the writer in the *Southern Medical and Surgical Journal*, for February, 1853.

Inasmuch, however, as many cases are found which are NOT EQUALLY ADAPTED to Lithotrity and Lithotomy, it may be well to study and to indicate the circumstances that would in such cases militate against either the one or the other of these operations.

The obstacles in the way of Lithotrity may be found in the condition of the urethra, in that of the bladder, or in the nature, volume and position of the calculus.

If the urethra be so irritable as to render catheterism painful and difficult, and that this state cannot be readily removed; if the canal be the seat of stricture which cannot without much inconvenience and delay be sufficiently overcome to allow the ready introduction of the Lithotrite; if there exist fistulous openings which seriously impede catheterism, and which would have to be cured before the instruments of Lithotrity could be easily used; and, finally, if the urethra were so compressed or deviated from its natural position by tumors situated along its course, whether in the perineum or prostatic region, as to offer an impediment to the introduction of large instruments; it is obvious that Lithotrity should give way to Lithotomy, and more especially if the early removal of the calculus, were deemed of urgent necessity. In such cases, the conduct of the Surgeon should be governed by a careful appreciation of all the peculiarities of the case. If the patient could, without incurring additional risk, be relieved of the obstacles and thus prepared for Lithotrity, all other things being equal, it would perhaps be advisable to adopt this course, for the operation of Lithotomy would not dispense with the necessity of subsequently combating the strictures and tumors to which we have referred.—Moreover, Lithotomy requires the introduction of a sound for the detection of the stone, and of a staff to guide the cutting instrument, although it is true that the sound and staff need not

be as large as a Lithotrite, nor would they probably have to be so often passed into the bladder. In such cases, if circumstances render it imperative to remove the stone as early as possible, Lithotomy will, of course, be the only alternative.

The prostate gland is sometimes so much enlarged, or the neck of the bladder compressed to such a degree by tumors, as to impede materially the introduction of the Lithotrite, and hence to preclude its use.

A very tender and irritable bladder will often prove an insurmountable obstacle to Lithotrity, notwithstanding the aid of anæsthetics. Sometimes the bladder is the seat of fungous excrescences, which will bleed more or less freely whenever instruments are introduced; or its capacity may be so much diminished as to render it difficult or impossible to distend it sufficiently with water to permit the safe use of the Lithotrite.

In cases in which the bladder is sacculated or affected with hypertrophied bands, the stone cannot be seized with the Lithotrite without great danger to the viscus.

The difficulty of crushing very hard and large stones is such as to render Lithotrity under such circumstances very objectionable. If the density of the stone is not great, however, its size will present but little difficulty, provided it be not too large to be seized by the Lithotrite.

Acute inflammation of the bladder, as well as atony or paralysis of this organ, will preclude a resort to Lithotrity, unless they be of such recent date as to warrant a delay sufficient for their subsidence before the operation be performed.

Most authorities are averse to Lithotrity in children, not only because of the greater difficulty of operating upon them, but also because of the very general success of Lithotomy in the young. The difficulty of operating upon children does not depend upon the mere smallness of their urethral canal, but also upon their lack of self-control—upon the almost impossibility of keeping them sufficiently quiet, even with the aid of strong assistants. Although the limbs and trunk may be firmly held, the convulsive movements of the diaphragm and abdominal muscles in crying and sobbing, will impart a degree of impulse to the bladder which may incommode the operator very much. But these difficulties are now measurably obviated by anæsthesia. M. Civiale however, (*Traité Prat. et. his. de la Lithotritie*, p.269) considers as very strong objections to Lithotrity in children, the existence of calculi too dense to be crushed with a small Lithotrite, and also the fact that in children the vesical orifice of the urethra, being very dilatable, will often allow fragments to pass into the urethra, which are too large to make their way out.

The circumstances that contra-indicate Lithotomy are generally admitted to be more rare than those that preclude a resort to Lithotrity. Among these, however, may be enumerated great exhaustion from long continued suffering or from other causes; the existence of an acute or chronic disease, which might be aggravated by so severe an operation; the presence of a stone of extremely large dimensions; deformities of the pelvis, or such morbid conditions of the hip joints as would prevent placing the patient in the proper position; great obesity, or the existence of perineal tumors, which would render it difficult to penetrate to the bladder; impenetrable strictures of the urethra; a sacculated or encysted stone; malignant disease of the bladder, &c. A very irritable or contracted state of the bladder that would prevent its being sufficiently distended with water before operating, would constitute a serious difficulty—and so would a reticulated or columnar state of the viscus. Considerable enlargement of the prostate will sometimes impede very much the extraction of the stone, even after the bladder has been penetrated.

If we now endeavor to determine how many out of any given number of cases of stone, would be adapted to either Lithotrity or Lithotomy, we will find no small amount of discrepancy among authors. We should rather say that we have no data from which we can deduce the proportion of cases in which Lithotomy, if EXCLUSIVELY used, could be resorted to—or, in other words, the proportion of cases of vesical calculus in which Lithotomy would be found impracticable or unadvisable, without regard to Lithotrity. Exclusive Lithotomists are not backward in furnishing the results of their operations; but they make no allusion to the number or proportion of cases rejected as unfit for operation. Yet such data would be necessary to judge correctly of the relative success of different Surgeons. It is evident that he who would eliminate or reject all cases of doubtful success might appear to very great advantage over those who feel bound to consult the best interests of the patient, rather than their professional reputation.

The only statement bearing upon the question, which I have seen, is that made by M. Civiale, who collected statistics from various parts of Europe, embracing no less than five thousand nine hundred cases of calculous disease. Of these 5900 cases, 4446 were operated on as follows: 3991 by cystotomy; 62 by extraction without incision; 73 by urethrotomy; and 320 by Lithotrity—thus leaving the large number of 1454 without being operated on—or about one-fourth who were probably deemed unfit for any operation. Although M. Civiale remarks that the details of the reports thus collected are incomplete, inasmuch as they only record 859 as not having been operated on, the infer-

ence we have drawn appears to us legitimate; for if the remainder had been operated on, the fact would have been stated. 595 cases are not accounted for. Sir Philip Crampton found two out of 35 cases unfit for ANY operation. The reliable statistics to which we have access refer to the number of cases adapted relatively to both Lithotrity and Lithotomy. Thus, according to Mr. Coulson (p. 111) "M. Velpeau asserts that Lithotrity is applicable in about a quarter only of the cases of calculous patients which may come before the Surgeon. M. Amussat, even so far back as 1835, declared that he found Lithotrity applicable to three-fourths of the calculous cases in his extensive practice. Sir Philip Crampton had occasion to treat thirty-five calculous patients within a period of eleven years, and of these two were considered unfit for any operation, twenty-four were Lithotritized, and nine were submitted to Lithotomy. This gives nearly the same proportion as that of M. Amussat, viz: three-fourths of calculous cases to which Lithotrity was applicable. The late Mr. Key, who was no warm advocate of Lithotrity, said, 'that more than half the number of adults who came under his care with stone were fit subjects for Lithotrity.' Between the years 1824 and 1836, M. Civiale saw 506 calculous patients; of these he rejected 199 as unsuited for the operation of Lithotrity, and operated on the remaining 307. Hence about two cases in every five were rejected during this period. From 1836 to 1845, M. Civiale saw 332 calculous patients, 91 were rejected, and 241 operated on; two cases in every seven were rejected during this period—or, taking both periods together, we have 290 cases out of 838 rejected, being a proportion of about one-third. This latter is perhaps as near to the true proportion as we can get; but we must remember that it applies to adults only."

Civiale (*Tr. Prat. et Hist. de la Lithotritie*, 1847, p. 567) states that in six years (from 1836 to '42) there were in the Parisian Hospitals 73 cases of Lithotomy, of which 45 were cured, 25 died, and 3 result unknown. During the same period Lithotrity was performed by others than himself in Paris 38 times, and death occurred in 11 of them. Civiale therefore infers that Lithotrity was deemed appropriate in 38 out of 111 cases of stone. He then states his own results during the same period to be as follows: In 97 cases of stone, he found 15 unfit for Lithotrity; 78 were subjected by him to Lithotrity, of whom 5 died.

From the ignorance, improvidence, or timidity of many of those affected with calculus, professional aid is not often invoked in the early stages of the disease; but is, on the contrary, made the last resort. In this way a larger number of cases become

unfit for Lithotrity than would be found under a different state of things.

In treating the subject assigned us, the question of the relative fatality of the two operations presents itself as one of primary importance. By reference to the works of M. Civiale, and to the more recent treatise of Mr. Coulson, we find a very considerable collection of statistical information; a portion of which we will use without further reference.

Mr. Coulson has collected well authenticated reports of no less than 6369 operations of Lithotomy, "more than two-thirds of which have been performed since the commencement of the present century," in which "the number of deaths was 958, and the general mortality, therefore, 1 in 6.62 cases." From the tables published by M. Civiale, it appears that of 582 lateral operations performed in France, 101 resulted fatally, making the proportion of deaths 1 in 5.70, and of 2278 cases of Lithotomy performed in various parts of Europe, 443 terminated fatally—or 1 in 5.14. From the tables of Mr. Coulson, the results in Great Britain were, in 1744 operations, 251 deaths, or 1 in 6.93.

According to Mr. Coulson's estimates the fatality of Lithotomy at different ages may be thus stated:

	Below 10 years of age, it is	1 in 13
From 10 to 20	" " " "	1 " 9
" 20 to 30	" " " "	1 " 6
" 30 to 40	" " " "	1 " 5
" 40 to 50	" " " "	1 " 4
" 50 to 60	" " " "	1 " 3.65
" 60 to 70	" " " "	1 " 3.23
" 70 to 80	" " " "	1 " 2.71
Aggregate proportion,		1 " 8.37

M. Civiale arrives at the following result:

From 1 to 10	years of age, the deaths are	1 in 8.47
" 11 to 20	" " " "	1 in 7.41
" 21 to 30	" " " "	1 in 4.62
" 31 to 40	" " " "	1 in 5.32
" 41 to 50	" " " "	1 in 6
" 51 to 60	" " " "	1 in 2
" 61 to 70	" " " "	1 in 1.89
" 71 to 80	" " " "	1 in 1.20

Aggregate proportion, 1 in 5.94

The Records of Pennsylvania Hospital, according to Dr. Norris (Report in Trans. Am. Med. Association, vol. 1) show that from 1752 to 1848, there were 83 operations of Lithotomy,

of which 72 were cured, 10 died and 1 was relieved. The private practice of Surgeons, both in Europe and in this country, has in many instances presented a striking contrast with the statements derived from hospital records. It is unnecessary, however, to furnish farther statistics upon this portion of our subject.

With regard to the fatality of LITHOTRITY, we find ourselves restricted to the writings of M. Civiale for anything specific. The success of this distinguished Surgeon in the treatment of calculous affections is without a parallel; and, although his statements were at one time (doubtless from a narrow spirit of envy), made the subject of serious imputations, they are now generally conceded to be fairly established, and are, we believe, so recognized by the French Academy. M. Civiale has published a complete account of each case, as well as tables of results. From 1824 to 1848, he had 848 cases of calculous disease—upon 591 he performed Lithotrity, of whom 14 died, or 1 in 42.21.

The following will exhibit the number of cases, at different ages, so far as recorded :

25 cases, from	1 to 20 years of age.
80 “ “	21 to 40 “ “ “
124 “ “	41 to 50 “ “ “
44 “ “	51 to 60 “ “ “
234 “ “	61 to 80 “ “ “
5 “ “	81 to 90 “ “ “

M. Leroy d'Etiolles reports 11 deaths in 116 operations. M. Heurteloup states that he has lost but 1 in 8

The conclusions of M. Civiale (op. cit., p. 48), with regard to the relative value of Lithotrity and Lithotomy, are as follows :

1st. Lithotrity when well performed, in appropriate cases, will save from 96 to 98 patients in 100.

2nd. The remaining fourth of calculous subjects unfit for Lithotrity may be subjected to Lithotomy.

3rd. By Lithotomy, if exclusively practised and without distinction of age, from 20 to 30 per cent. will be lost.

4th. If applied to children exclusively, Lithotomy will save nine-tenths.

5th. If applied to adults of all ages, Lithotomy saves from 50 to 75 per centum.

Having now presented, even at the risk of tedious repetitions, the arguments which might be urged for and against both Lithotrity and Lithotomy in cases deemed equally adapted to either of these operations, and also indicated the circumstances that should be taken into consideration in determining upon the adoption of one or the other operative procedure, it may

be expected of us to be more definite, and to avow a preference for either Lithotrity or Lithotomy, as a general plan of treatment. In deciding upon the propriety of surgical operations, or upon the merits of particular processes, it will be often found a wholesome rule, and one by which the solution may be readily obtained, to suppose ourselves in the condition of the patient, and then to ask what would be our election under such circumstances. We have very frequently, in this manner, determined at once the course to be adopted in cases previously involving much doubt and hesitation. With regard to Lithotomy and Lithotrity, we are free to acknowledge that if we were affected with stone, and that the circumstances were equally favorable to the success of either operation, we would not hesitate a moment in giving the preference to Lithotrity. The advantages of Lithotrity are numerous and important, whereas the only intrinsic or valid objections that can be alleged against it, under the circumstances referred to, are to be found in the facts that the operation may have to be repeated, and that it leaves the patient more liable to a recurrence of the disease than Lithotomy. The advantages of Lithotrity unquestionably very far outweigh all the objections to it. So thought those justly celebrated practitioners, Lisfranc, Dubois, Boisseau, &c., who did not hesitate to do homage to Lithotrity, and to the skill of Civiale, by submitting to be Lithotritized by him.

Some important Observations on Aphonia arising from organic lesions. By HORACE GREEN, M. D.

[The following article was read before the London Medical Society (having been furnished at the request of a corresponding member of that Society,) by the Secretary, at its session, in April, 1854.]

Since the publication of my work on "Diseases of the Air-Passages," in which are recorded several cases of aphonia,* dependent as it appeared to me at the time, on the presence of ulcerations of the vocal cords, I have had an opportunity of observing a large number of cases of aphonia, in many of which the alterations of structure were quite different, in their character and location, from those of the above cases. In other words, the lesions on which the aphonia depended, were not constantly lesions of the vocal cords, nor did they always occur in their immediate vicinity. As such instances are frequently to be met with, in which the changes of structure are in some degree remote from the vocal ligaments, and as the voice in these cases cannot be restored until the primary lesion

* A Treatise on Diseases of the Air-Passages, &c., p. 75, *et seq.*

is discovered and arrested, it has occurred to me that a history of some of those cases of aphonia which arise from causes not alluded to by authors, may add something to our knowledge in medical pathology.

Dr. Cullen has enumerated three species of aphonia, namely, *aphonia gutturalis*, *aphonia trachealis*, and *aphonia atonica*; and most subsequent writers have followed this division. But these varieties do not include some of the most difficult and severe forms of this symptomatic affection; for aphonia is not an idiopathic disease, but has its origin either in lesion of sensibility or lesion of structure. Under the first head are included those forms of nervous aphonia to which writers on this subject have generally alluded. In this variety, which occurs from lesions of sensibility, no organic changes whatever take place. It is the *aphonia atonica* of Dr. Good, and consists of "a total exhaustion of nervous power in the vocal organs."* In the succeeding cases, the causes of aphonia proceeded from structural changes. They belong, therefore, to the second variety. Aphonia, under my observation, has been found to follow, or to be perpetuated by, the following changes.

1. Ulceration of the mucous membrane of the vocal ligaments.

2. Thickening of the mucous membrane of the vocal ligaments.

3. Œdema of the aryteno-epiglottic folds.

4. Œdema of the epiglottic cartilage.

5. Ulcerations of the fossæ at the roots of the tongue and on the sides of the aryteno-epiglottic cartilages.

1. *Aphonia from ulcerations of the mucous membrane of the vocal cords.*

It is the opinion of both Andral and Ryland, that simple ulcerations of the lining membrane of the larynx, unless they invade the vocal cords or the thyro-arytenoid muscles, cause but little change either in the power or tone of the voice. When the mucous membrane covering one of the vocal ligaments only is ulcerated, the voice is rendered raucous and hoarse. If the investing membrane of both vocal cords is affected, the voice loses its power, and is reduced to a rough whisper only.†

It has been observed by Louis and Andral,‡ that the effects produced on the voice by ulceration of the larynx, differ mate-

* Good's Study of Medicine, article, Aphonia.

† A. Treatise on the Diseases and injuries of the Larynx and Trachea. By Fred. K. Ryland, p. 95.

‡ Clinique Medicale, Tome II., p. 208.

rially, according to the seat and extent of the ulceration. In fourteen patients, whose cases of laryngeal ulceration, complicated with phthisis, are recorded by M. Louis, where small, superficial ulcerations were found seated, either within the ventricles, between the arytenoid cartilages, or at the point of junction of the vocal cords, the symptoms present were, hoarseness, a marked alteration in the character of the voice, with heat and pricking pains in the larynx, followed, ultimately, by a complete extinction of all vocal sounds.

During the past five years, many cases of aphonia, consequent upon ulcerations of the mucous membrane of the vocal cords, occurring in the progress of follicular laryngitis, have come under my observation, in all of which the ulcerations have been arrested and the voice restored by topical medication, except in those cases in which the vocal ligaments had been previously destroyed by long-continued disease, or in such as were complicated with tuberculosis. It will be sufficient, by the history of a single case to illustrate this variety of aphonia, which has its origin in ulceration of the investing membrane of the vocal cords.

CASE I. A gentleman forty years of age, from an adjoining State, who had suffered under follicular laryngitis for two years, came to New York several months ago, for medical advice. Two years before this visit, whilst actively engaged in business, he found his voice beginning to fail. He became hoarse, and a constant feeling of uneasiness, with pain, was experienced about the throat. These symptoms, first observed early in autumn, continued to increase in severity during the subsequent winter and spring, attended with debility and great nervous irritability, until May following when he became completely aphonic. Obligated to relinquish his business on account of his feebleness, he passed fourteen months after the loss of his voice, before I saw him, in the employment of different measures for the recovery of his health. But failing in all these efforts, he came to this city for aid. His condition, on examination, was found to be the following: He was much debilitated, with a feeble pulse, and his voice reduced to the lowest whisper; he complained of pain in the larynx and under the sternal bone, and of a sense of uneasiness and constriction in the upper part of the throat. The mucous membrane lining the pharynx was covered with enlarged follicles, some of which were ulcerated; the tonsils were slightly enlarged, and the epiglottis much thickened, and its upper border serrated by ulcerations. This condition of the mucous membrane, as far as it could be seen, the pain and soreness in the larynx, the

loss of voice, and other symptoms present, indicated ulcerations of the involving membrane of the vocal ligaments. This opinion was confirmed by the difficulties encountered in the first attempts to pass the sponge probang through the *rima glottidis*.

A strong solution of the *argent. nit.* (2 scruples to the oz.) was applied to the fauces and pharyngeal membrane. The second day, the application was carried down to the *epiglottis*, and to the opening of the *glottis*; and on the third day, the vocal cords were reached, and fully cauterized. This last application caused much irritation, and for a short time severe pain directly in the larynx. This I have always found to be the case when a strong solution of the nitrate of silver is for the first time applied to ulcerations of the vocal cords. Subsequently, this pain diminishes on each application, and very soon ceases altogether. Ferruginous tonics, with other appropriate general treatment, were employed; and the topical remedy was continued daily for a week, when the ulcerations about the mucous membrane of the pharynx were found to have healed; and about the same time the soreness and irritation in the laryngeal cavity, and the pain under the sternum had entirely disappeared. In two weeks from the time when the local remedy was first employed, the voice of the patient returned, and vocalization in the course of a few days was fully and permanently established.

That the aphonia, in the above case, had its origin in an ulcerated condition of the mucous membrane of the vocal cords, was inferred from the presence of the symptoms which have been enumerated; from the fact that the sponge containing the caustic fluid, at the moment of passing the *rima glottidis* (the space between the vocal ligaments,) produced at this point a distinct painful sensation, as when an ulcerated surface of the mucous membrane is touched with the argentine solution; and also from another fact, which when existing, reveals to the experienced operator, with much certainty, the presence of ulcerations of the mucous membrane in the cavity of the larynx. I refer to the fact, that when the sponge-probang is applied to an inflamed or thickened mucous membrane it glides smoothly over the part, as if passing over the surface of moistened glass; but when ulcerations of the membrane exist within the larynx, a distinct sensation of roughness is conveyed to the hand of the operator when the instrument is introduced into this cavity; and this sensation will continue, but diminishing as the ulcers heal, until the membrane is restored to its normal condition.

Several years ago, I had an opportunity of treating a gentleman in this city, who had labored many years under chronic laryngitis, or "laryngeal phthisis." All the symptoms of ul-

ceration of the larynx were present, and when the cauterizations were made into the larynx this sensation of roughness of the lining membrane was very apparent. It diminished as the applications were continued, as did the unfavorable symptoms which attended this condition.

Some years afterwards, I had an opportunity of examining the larynx of this patient (who died of another disease,) and found the mucous membrane of the ventricles and of the larynx covered with the cicatrices of old ulcerations, but which were quite healed. This morbid specimen I have still in my possession.

2. *Aphonia from a thickening of the mucous membrane of the vocal cords.*

This lesion is of more frequent occurrence, I am confident, than is generally admitted. Many of those supposed cases of atonic aphonia where the loss of voice has been attributed to lesions of sensibility, have proceeded, I believe, from a slow hypertrophy or thickening of the investing membrane, and of the follicles of the vocal cords. It has been shown by Rokitsansky, that not only hypertrophy of the mucous membrane of the airpassages may occur, but that the follicles of the larynx and trachea are frequently found in this condition. When this altered state of the lining membrane of the air-tubes is moderately developed, it presents the ordinary characteristics of hypertrophy of mucous membranes; but in a higher degree, Rokitsansky remarks, "it especially affects the mucous glands, and in the larynx gives rise to glandular swellings of the mucous membrane, at those parts where the glands are most abundant, as for instance, on the vocal cords, in the ventricles, over the transverse muscles, and on the epiglottis."*

This variety of aphonia is generally complicated with, or the result of chronic follicular inflammation. Some ten cases of the disease originating in these changes of structure have come under my observation within the last few years. Most of these cases have occurred in females, and in a large portion of them the disease had been considered as dependent upon impaired sensibility of the laryngeal nerves. You will recall one or two of these cases which were under treatment last fall, one of which was present when I had the honor of a visit from Dr. Marshall Hall, whose skepticism at this time, with regard to the medication of the windpipe, was somewhat dissipated by seeing the sponge-probang passed repeatedly into the trachea of some of the patients then present.

* Manual of Pathological Anatomy, by Carl Rokitsansky, M. D., vol. IV. p. 13, Sydenham edition.

The history of this last case, which both of you, I believe, had an opportunity of seeing, will illustrate that change of structure of the vocal organs on which depends this most obstinate form of aphonia.

CASE II. Miss B., aged twenty-six, consulted me, December, 1852. At this time she had not spoken aloud for fourteen months. Six years before, in the spring of 1846, she took a hard cold, which was followed by a severe cough, sore throat, pain in her side, &c., for which she was treated by her family physician. She passed the following summer in the country, and was improved in her health; but in the succeeding winter the cough, pain in the chest, and irritation of the throat returned. In the summer of 1847 she was again in the country, by which her health was again improved. The return of the cold season of 1848 brought back all her unfavorable symptoms: and although relieved as at former times by the recurrence of the warm season, yet cold or damp, and cold weather, invariably aggravated the disease. In the summer of 1849, after a slight exposure, she contracted a cold, and for three or four weeks was very ill. The thoracic symptoms were urgent; pain in the chest, severe cough and fever, for which active treatment was employed. After this attack she was more feeble than ever, and during the winter of 1850 her cough and other pulmonary symptoms were more persistent and severe than at any former period. But in the succeeding spring and summer a change of climate, as in former seasons, was resorted to, which was again followed with some degree of relief. Throughout this year she was attended by two intelligent physicians, who, together with a distinguished auscultator of this city, by whom her chest was examined, considered her case and treated it as one of confirmed phthisis. From November to May, 1851, Miss B. was not able to leave her house. During several months of this year she was affected with a chronic diarrhœa, by which she was greatly prostrated. Her voice, which had been hoarse for a long period, grew gradually weaker until October, 1851, when it became permanently extinguished. In this condition she remained, with but little change in her general symptoms, except some slight mitigation of them during summer weather, until the 25th of December, 1852, when at the request of her attending physician I saw her for the first time.

Miss B. was quite feeble, emaciated, and had a pale, anxious countenance: a cough, with muco-purulent expectoration, was present. The respiration was hurried, and rendered more difficult on making the least exertion; and the voice was reduced to the lowest whisper. In the throat, the follicles of the

pharyngeal membrane were enlarged and indurated, both tonsils were partly destroyed by disease, the epiglottis was twice its natural thickness and had a pale aspect. The arytenoid cartilages, examined by touch, were not œdematous. On examining the chest, the respiration was found weak in the upper portions of both lungs, with bronchial respiration. There was also slight dullness on percussion under the left clavicle. A few applications of the nitrate of silver had been made, by her attending physician, to the pharynx; and it was proposed to carry these applications at once, into the larynx; and a teaspoonful night and morning of the following preparation was ordered,—

R. Potass. iodid., ʒ ij.,
Proto. iodid. hydrarg., gr. ij.,
Tinct. columbæ,
Syr. sarsa. co. aa. f ʒ ij.

and on the second day the attempt was made to pass the instrument through the rima-glottidis, but the space between the vocal cords proper was found to be too narrow for the passage of a sponge-probang of the smallest size. After continuing the applications, however, for several days, a small sponge was passed through the rima; and this application was continued every second day through the month of January. At the end of six weeks from the commencement of the local treatment, the general health of the patient had somewhat improved; but the voice was unchanged, except that the whisper, which at first was not above the ordinary respiration, was a little increased in volume; but by no exertion could the patient utter a word above the whisper. It was observed, moreover, that a larger instrument could be passed through the rima-glottidis than at first. Yet, still, the thickened and unyielding nature of the vocal cords could be distinctly felt, as the sponge passed between them. This local treatment was continued, though at longer intervals, through the months of February, March, and April, combined with appropriate constitutional remedies. In May, Miss B. was absent from the city a part of the time, and only a few applications of the caustic were made during this period. In July, the topical treatment was renewed and with a confident hope of success; for although the aphonia had been unusually persistent, yet it was found that the induration and thickening about the vocal ligaments continued steadily, though very slowly to diminish; and along with this local improvement, the cough, and other unfavorable, general symptoms, had greatly diminished. At this time, too, a sponge, more than double the size of the one first employed, could be passed readily through the rima-glottidis. Inhalations

of creasote were occasionally employed, and the applications of nitrate of silver continued until the 18th July, when for the first time for a period of twenty-one months, Miss B. spoke aloud.

Her voice at first, was feeble, but it rapidly increased in strength and volume; and vocalization, in a few weeks more, was fully restored. A change equally favorable occurred with respect to her general health: as the local symptoms improved, the cough, pain in the chest and other indications of thoracic disease diminished. She improved in strength and flesh, and has now (Feb. 1854) passed a period of eighteen months, since the recovery of her voice, in the enjoyment of excellent health.

In this case of Miss B., the disease proved the most obstinate of any case of the kind I have ever treated. I have had several instances of this form of aphonia come under my notice, in none of which was so long a course of treatment required.

In the case of a lady from Massachusetts, who had been for five years perfectly aphonic, the voice was fully restored by the employment of the local treatment for six weeks. In another instance, a patient from Connecticut, voiceless for more than three years, was perfectly restored in as many weeks.

In all these instances, symptoms, more or less marked, of thoracic disease, were present; and it has been a matter of great interest to myself and others to observe in these cases, how constantly the pulmonary symptoms have disappeared, as the causes of the local irritation have diminished.

3. *Aphonia from œdema of the aryteno-epiglottic folds.*

That form of inflammation which occasionally attacks the superior aperture of the larynx, and which is termed œdema of the glottis, is characterized, anatomically, by an infiltration of the sub-mucous areolar tissue of the aryteno-epiglottic cartilages; and whether the disease is idiopathic or secondary, it is always attended by entire loss of voice. The aphonia consequent upon this morphological change, does not exist in consequence of any alteration of structure about the vocal cords, for infiltration is here prevented by a very beautiful arrangement. Over these ligaments the mucous membrane is thin and adherent, having no sub-mucous areolar tissue interposed between the vocal cords proper and their lining membrane.

The loss of voice, in this affection, proceeds from the almost complete closure of the opening of the glottis, and the œdema of the arytenoid cartilages; and, also, from the morbid impression produced on the laryngeal nerves by the disease located in their immediate vicinity. In a small work, published by me some months ago, on "Polypi of the Larynx and Œdema of the

Glottis," I have given several cases of œdema-glottidis, in all of which the voice was completely lost. But there occasionally occurs an intumescence of the aryteno-epiglottic folds of a character less intense than that of true œdema. It accompanies catarrhal inflammations of a sub-acute character, and consists in an infiltration of the sub-mucous areolar tissue of the above folds, and is frequently attended with aphonia as in true œdema of the glottis.

The following case will illustrate this variety : Sept. 1, 1852 ; J. C. F., a young gentleman, æt. 25, came up from his residence on Staten Island, this morning, to consult me in regard to the loss of his voice. Several weeks ago, Mr. F. took "a slight cold," to which, at first, he gave but little attention. Some degree of fever, with cough and expectoration, were present, and his voice, which was hoarse from the first, continued to lose its power until, on rising one morning two weeks before I saw him, he found himself quite incapable of uttering a sound aloud. His physician, finding the fauces and posterior wall of the pharynx inflamed, applied daily a solution of iodine to these parts, and administered an emetic, followed by expectorant remedies. These and similar measures, constitute the treatment before I saw him. The aphonia, at this time, was complete. A cough, with considerable expectoration, which appeared to come from the throat and upper part of the windpipe, was present. The patient suffered also from dyspnœa, which was much increased by the least exertion. The dyspnœa was characterized by that peculiarity which, more or less, attends all cases of œdema, when located at the aperture of the glottis ; that is the act of inspiration occurs with much difficulty, whilst expiration is performed without obstruction.

On examining the throat of the patient, this condition, indicated by the above symptom, was found as anticipated. By pressing the finger over the laryngeal face of the epiglottis, a small soft tumor was readily detected, occupying each lateral border of the glottis. Having learned, from past experience, that infiltrations of the opening of the windpipe are rapidly removed (as I have shown in my work on œdema glottidis) by applications to the parts of a concentrated solution of nitrate of silver, I immediately applied this remedy, by means of the ordinary sponge-probang, freely to the injected borders of the glottis. The applications were repeated daily, and the iodide of potassium was administered internally. Under this treatment the œdema rapidly diminished.

As the intumescence subsided, the dyspnœa, cough, and expectoration, diminished ; and at the end of a week the patient could speak aloud. The local treatment was continued for

another week, when all the unfavorable symptoms had disappeared, and the voice was restored to its normal condition.

As I have before stated, this œdematous condition of the aryteno-epiglottic folds is the frequent concomitant of catarrhal inflammations. The aphonia consequent upon it will sometimes remain for months under ordinary treatment, before the infiltration is sufficiently removed to allow vocalization to be performed. Besides, the swelling acting as a local irritant, at the opening of the air-passages, is very likely to awaken more serious organic disease, particularly in constitutions predisposed to tuberculosis. It is therefore, of the utmost importance to detect this lesion in its earliest stage; and it may be discovered readily by the touch, as well as by the characteristic respiration. Once detected, it is most certainly and rapidly removed by the topical medication.

4. *Aphonia from œdema of the epiglottic cartilage.*

œdema of the epiglottis is an alteration of structure of more frequent occurrence than the lesion of the aryteno-epiglottic folds, to which I have just referred. It proceeds from the same cause, namely, catarrhal inflammation, and consists in an infiltration of the sub-mucous areolar tissue of the epiglottis. The infiltration occurs on the lingual side of the cartilage, because of the great amount of areolar tissue on its anterior face. This causes the epiglottis to assume a very anomalous aspect; its edges are rolled back and approximated, and when the intumescence is considerable, it presents much the appearance of a round tumor at the base of the tongue. That variety of aphonia consequent on this lesion of the epiglottis, is frequently observed in epidemic catarrhs. During the prevalence of an influenza that occurred to some extent, in New York, in the winter of 1853, I observed many cases of total loss of voice from this cause. Even within the present month (Feb. 1854,) during the cold and unusually damp weather which has occurred, some four or five patients, laboring under this form of aphonia, have presented themselves at my office for medical treatment. I will give a single instance of this form of the disease, arising from œdema of the epiglottis.

CASE IV. A young gentleman, who, three weeks before, had had an attack of the prevailing epidemic, called on me, January 29, 1853. The disease, in its early stage, was attended by a total loss of voice; and it was in reference to this voiceless condition that my opinion was desired. Some degree of cough was present, attended with slight expectoration, but the respi-

ration was but little affected. On depressing the tongue of the patient, the epiglottis was readily brought into view, and it certainly presented that very anomalous aspect to which I have alluded.

Extensive infiltration having taken place in the sub-mucous tissue on its anterior face, the cartilage was enormously enlarged, its lateral edges were turned backwards and approximated and its whole appearance was that of a round, puffy tumor, lying at the opening of the glottis. Examining, with the finger, for the arytenoid cartilages, they were found to be not involved in the œdematous infiltration; and this exemption from the disease, in this location, accounted at once for the slight degree of difficulty presented in the respiration of the patient.

To procure a re-absorption of the infiltrated serum, a strong solution of nit. argent. was applied freely to the epiglottis, and to the whole faucial region. A profuse expectoration of adhesive mucus, from these parts, followed the application. The topical remedy was continued daily, for ten days. Under its use the tumefied epiglottis diminished constantly; and at the end of a week, the patient could speak aloud, although his voice had a muffled sound. Continuing the applications a few days longer, the epiglottis, at the end of this time, was found reduced to its normal size, and the patient's voice and general health were fully restored.

That the loss of voice, in this case, as well as in many similar cases which have been observed, depended on the intumescence of the epiglottis, has been proved repeatedly by the fact, that when the epiglottis has been thus œdematous, voicelessness in most cases has been present; and, also, by the other fact, that the voice in some of these cases returned after the œdema of the cartilage had been removed.

5. *Aphonia arising from ulcerations of the mucous membrane of the fossæ which are situated between the columns of the palatine arch, but at their base, and external to the arytenoid cartilages.*

It has long seemed to me that the very great frequency with which ulcerations are found to exist in the lateral fossæ at the base of the tongue, and the equally important truth that very serious consequences not unfrequently follow their long continuance in these locations, are facts far from being generally known or appreciated by the profession. In connection with long-continued follicular disease of the throat, these ulcers are of every-day occurrence; and they not only affect vocalization, but through constant irritation, kept up by their presence near the opening of the air-tubes, they awaken, quite frequently,

more serious disease in the pulmonary organs. But, at present, I have only to speak of that variety of aphonia which is caused, occasionally, by these lesions.

Ulcerations of the thyro-arytenoid mucous folds may exist without inducing, necessarily, a loss of voice. When one fossa only is involved in the change of structure, vocalization is not ordinarily interfered with to any considerable extent. But, when both fossæ are ulcerated, the voice soon becomes hoarse and uneven, and is followed, at length, in some cases, by total aphonia. During the past ten years, I have observed many such instances of the disease; several cases have occurred, within a few months, in my practice. One of these, that of a gentleman from Kentucky, you will recollect having noticed. I will therefore illustrate this variety of aphonia by reference to his case.

CASE V. This patient first called to consult me in October, 1853. He had then been for several months voiceless; and for twelve months, or over, he had suffered from chronic ulceration of the throat; for which, general treatment, with the use of astringent gargles, had been employed by his attending physicians, one of whom recommended him to visit New York and consult me. On examining the patient's throat, the pharyngeal mucous membrane was found thickened, and ulcerated at many points. Between the anterior and posterior columns of the palatine arch, on depressing the tongue, a large and deep ulcer was observed on either side, commencing at the base of the tonsillary gland, and extending down into the fossa as far as the eye could see. The epiglottis and the arytenoid cartilages were in a normal condition. An abundant muco-purulent secretion was being constantly hawked up from these parts.

There was difficulty of deglutition; but no cough existed, nor were there any other indications of disease within the larynx; still, this gentleman had been aphonic for several months. His general health had suffered from the local disease; for he was feeble, pale, and emaciated, exhibiting, in short, many of the external or rational signs of phthisis. But auscultation failed to discover any abnormal state of the lungs. With a small sponge-probang, the lingual fossæ were cauterized with a strong argentine solution (80 grs. to ʒi.) and a drachm of the following mixture ordered to be taken twice daily:—

℞ Potass. iodid., ʒ ij.

Proto-iodid. hydrarg., gr. ij.

Tinct. columbæ.

Syr. sarsæ, co., aa. f. ʒ ij. M.

The cauterizations were repeated daily, until the 13th, when

the ulcerated fossæ were nearly healed, and the patient could speak at this time in a loud, although a hoarse voice. After this he improved rapidly; the expectoration diminished, the difficulty of deglutition was gone, and in the course of another week, the patient had gained several pounds of flesh. He was able to converse with a voice as loud and clear as at any period of his life; and he left for his home with the intention, as he declared, of "stumping it for Congress" on his arrival in his district, in Kentucky.

That the loss of voice in this case, as well as in many similar instances which have come under my observation, depended upon the above lesions of the fossæ, may be fairly inferred from the results of the treatment. As no disease existed within the larynx, the applications were not made to the vocal cords, but external to the opening of the glottis, where the ulcerations were located. When these were healed, and not till then, vocalization and, ultimately, the general health of the patient were fully restored.

These lesions on which depend this last variety of aphonia, are, I repeat, of very frequent occurrence, and are very frequently overlooked. Within a few days, since I commenced drawing up this paper, I have had an opportunity of seeing, in consultation with our distinguished friend, Dr. Valentine Mott, an interesting case of aphonia having its origin in ulcerations of the above fossæ. The disease, in this instance, had been of twelve months' standing; the lesions during this time remaining undetected, whilst constitutional remedies had been addressed, by the patient's medical attendant, to the general symptoms, which, although of a grave character, were only secondary, and of course remained unrelieved by the treatment.

Aphonia, then, I do not hesitate to declare, will be found to originate, at one time or another, in each and all of these structural changes, to which allusion has been made. Some of these lesions, I am aware, may exist without, in all cases, inducing aphonia; but I have the records, and could give you the history if necessary, of a large number of cases which have followed each of the pathological conditions. Some of these cases, as well as their treatment, you have observed; and many of them, you are aware, have been seen at my office, from time to time, by medical men from almost every part of the Union.

It will be unnecessary to enter into any details with regard to the treatment to be employed in the management of these different forms of aphonia. Whether the alterations of structure, on which the disease depends, consist in œdema of the parts, in ulcerations of the mucous membrane or its follicles, or in a thickening of the investing membrane of the cordæ vocales,—

topical medication in the form of a concentrated solution of the crystalized nitrate of silver has proved in my hands to be altogether the most effectual remedy that has yet been adopted. Constitutional remedies, when indicated, are to be employed, as in other cases where local disease is found complicated with general derangement. The different preparations of iodine, chalybeates, and other tonics, with the inhalation of creasote, are valuable adjuncts; but without topical medication, these latter measures are ordinarily of no avail.

[*American Medical Monthly.*

Cure of Laceration of the Urethra. By Dr. J. GAUTIER, M.D.,
of Tuskegee, Alabama.

James Hall, aged 35 years; has light hair, blue eyes, fair complexion; a sound and vigorous constitution; weighs about one hundred and fifty pounds. In May, 1852, he was engaged as a deck-hand on board of a steamboat running from the city of Galveston to Brazoria, and while in the latter port, and engaged in discharging freight (at night), he attempted to cross over the hatch, and in doing so missed his footing, and fell astride of a square bar of iron extending across the hatch, upon which the doors rested. Laceration of the urethra, and great contusion of the perineum resulted. The injury occurred about 10 o'clock at night. I did not see Hall until the next morning between 8 and 9 o'clock. He was then complaining of excruciating pain, with great distension of the bladder, and an inability to pass urine. By the forcible contraction of the bladder, occasionally a few drops of bloody urine would pass through the penis. On investigation, I at once concluded that there was laceration of the urethra. The only case of the kind I had ever seen before, was in a little boy, treated in the Pennsylvania Hospital, under the care of Drs. Norris and Fox, in 1850. The experience furnished by the case, together with the valuable instruction given by the doctors above-mentioned, rendered the treatment of this case, to my mind, positive and clear.

At once, I attempted to introduce a silver catheter into the bladder, but could only pass it up to the seat of laceration. After working with him an hour or two, and trying every size of gum-elastic catheter, I at last succeeded in introducing one of the latter, of very small size, into his bladder, and drew off by measurement twenty ounces of urine considerably coloured with blood. Having got a catheter beyond the point of laceration, I knew, from the facts of the case seen in the Pennsylvania Hospital, that it was wise to keep the instrument as long

as possible in the nrethra. On the second day, I had to remove the catheter; but I immediately introduced another of a larger size.

The perineum was kept constantly bathed in cold water, or a solution of sugar of lead. Hall had high fever and costive bowels, and saline purgatives were administered and an anti-phlogistic treatment adopted. In a few days his fever subsided, and he was doing well. In six or eight days after his injury, I was able to introduce a large silver catheter into his bladder.

From the time of his injury, I have endeavoured to make it an established rule with Hall that he should never attempt to pass urine while the catheter was out of his bladder. On the morning of the fifteenth day of the injury, professional duty compelled me to be absent, and during my absence, Hall took the catheter from the urethra, and left it out for several hours. When he wanted to make water, he was unable to introduce the instrument. As he was suffering from distension of the bladder, another physician was sent for, and Hall was told to pass water *without* the catheter.

On my return home in the afternoon, I went immediately to see my patient. I found him in a condition vastly more dangerous than he had been upon the morning of his injury. The penis, scrotum, perineum, and cellular tissue about the pubis, were enormously distended from infiltration of urine. He had high fever, and his mind was considerably disturbed. Some of the by-standers supposed him to be dying. With considerable difficulty I again succeeded in introducing a catheter into the bladder. I then freely scarified the scrotum, to allow the infiltrated urine to escape. In a few days, mortification of the scrotum took place, and both testes were left entirely denuded of skin and cellular tissue, hanging only by the cords. The posterior and under part of the penis, and a portion of the perineum, were in a state of sphacelation. About two inches of the urethra was destroyed. From the destruction of the perineum, under part of the penis, and the urethra, at least two inches of the silver catheter could be seen. The bulb of the urethra was not injured, the destruction being anterior and posterior to the bulb. To add still another pang to Hall's misfortunes, one day, when asleep, flies deposited their ova on his testes and perineum. In the course of four or five days, at least fifty large maggots were taken from the perineum. My patient was now troubled with constant hectic fever, and greatly emaciated. In this condition, I had but little hope of his recovery. For ten or twelve days he lay feeble and prostrated almost unto death. I watched his case closely, removed all disturbing causes, and kept the catheter constantly in his blad-

der, removing it only to be washed. I gave him but little medicine, principally tonics. Rich, nutritious diet was allowed. The case was left as much in the hands of nature as possible.

About the latter part of June, Hall began to show evidences of recovery. His general health was gradually improving. Nature was throwing off the putrid mass, and beginning to reproduce new tissue. Indeed, the rapidity with which the parts were restored to their normal condition was truly astonishing. In less than six weeks from the commencement of the formation of new tissue, the testes were enveloped in a new scrotum; the penis, urethra, and perineum were entirely restored.

By the latter part of August, Hall was well, and free from deformity. He could retain his water as well as he ever did, and void it *per vias naturales*, and with ease. He has not used a catheter since the 12th of August. When I saw Hall again, early in September, he was riding an unbroken mustang horse; and he assured me he was perfectly well, and had as much strength, and as perfect use of himself, as he had before the fall.

[NOTE BY THE EDITOR.—In connection with the above interesting case, we will refer to some observations which we published in the number of this Journal for Feb. 1837, on accidents of this character, their nature and mode of treatment, illustrated by a large number of cases.]—*Amer. Jour. of Med. Sci.*

Diabetes Mellitus.

Probably one of the most elaborate papers ever written on this disease has just been published by Dr. Th. Von Dursch, of Manheim. It is founded upon two very interesting cases of diabetes, of which he has given very careful clinical reports, and also accounts of the pathological lesions found after death. With indefatigable perseverance and most praiseworthy zeal, he carefully ascertained, every day for several months, the nature and amount of the food and drink taken by his patients; the amount of fluid contained in the aliment; the quantity of urine excreted, its specific gravity, and the amount of sugar it contained; the number of the stools, the proportion of their watery constituents; the amount of water exhaled by the lungs and transpired by the skin, &c. The results of these most laborious and minute investigations he has condensed into two large synoptical tables, which are appended to the memoir. In one of these, full particulars are given of the effects of different kinds of diet upon the total amount, specific gravity, and

saccharine constituents of the urine. As far as our limited space permits, we shall now glance at the general results thus tabulated. *First*, when the patient was put upon a mixed diet for forty days; *second*, when a farinaceous diet alone was allowed during eight days; and, *third*, when animal food was given during a period of five days.

1. *Effects of mixed diet on*

(a). *The specific gravity.*—The average density of the urine, while this regimen was adhered to, was 1037.8; it was higher in the mornings and evenings (1038) than during the day (1036).

(b). *The amount of the urine.*—The daily average was 5234 cubic centimetres. The quantity voided was greater in the morning (1971 c.c.) and evening (1831 c.c.) than during the day (1430).

(c). *The percentage of sugar.*—The average amount of saccharine matter was 9.134 in the 100 grammes. The percentage was lower in the morning and mid-day urine (8.9) than in that passed at night (9.4).

(d). *The total amount of sugar.*—The average daily amount of sugar excreted during the whole period was 477.7 grammes; the lowest was 350, and the highest 615 grammes.

2. *Effects of farinaceous diet on*

(a). *The specific gravity.*—This continued nearly the same as with mixed diet; the average was 1037.6. With this regimen, also, it was lower during the day than at night or morning.

(b). *The amount of the urine.*—This was increased to 5604 cubic centimetres as its daily average. It was greater in the morning (2165 c.c.) than during the day (1737 c.c.) or at night (1701).

(c). *The percentage of sugar.*—This continued nearly unchanged, being on an average 9.39 in 100 grammes.

(d). *The total amount of sugar.*—In this a considerable increase was visible, while the farinaceous diet was continued. The average quantity of sugar daily excreted amounted to 526.4 grammes; and the urine in the morning contained more (201 gr.) than at noon (159 gr.) or at night (165 gr.)

3. *The effect of animal diet on*

(a). *The specific gravity.*—It remained nearly unaltered by this regimen, as happened with both the other diets. Its average was 1037.2; and it was lower in the morning (1036) than at other times (1037).

(b). *The amount of the urine.*—This was considerably diminished, the average quantity *per diem* being 4588 cubic

centimetres. The average amount was much greater in the morning (1816 c.c.) than during the day (1324 c.c.) or at night (1448 c.c.)

(c). *The percentage of sugar.*—This was also lessened, being on an average 8.232 in 100 grammes.

(d). *The total amount of sugar.*—Here, likewise, a striking diminution was manifest. The average quantity daily excreted was 379.8 grammes; this was greatest in the morning (139 grs.) and less during the day (114 grs.) than at night (126 grs.)

Dr. Von Dursch discusses several of the questions relative to diabetes, and brings to bear upon them the weight of his experience and careful observations. As regards the disputed point, whether the quantity of the urine voided in this disease surpasses the amount of the fluids absorbed, he thinks that the question has not been properly considered, and that we ought to compare the amount of water in the urine, &c., with that contained in the food and drink taken. During his investigations, he ascertained the amount of the cutaneous transpiration and pulmonary exhalation by frequently weighing his patient; and he also carefully noted the quantity of water contained in the feces. He has succeeded thereby in satisfying himself that the water given off by the patient equals exactly the amount of the water absorbed by him.

In conclusion, the author believes, from all his researches, that diabetes principally depends on the sugar normally existing in the blood being undestroyed and unappropriated; and he is of opinion that all kinds of food are capable of producing sugar.—[*Monthly Jour. Med. Sci.*, from *Henlé und Pseuffer's Zeitsch. für Rationelle Medicin.*

On the use of Vegetable and Mineral Acids in the Treatment, Prophylactic and Remedial, of Epidemic Disorders of the Bowels.

An interesting paper on this subject was read before the Epidemiological Society, July 3, 1854, by J. H. Tucker, Esq.—The author commenced by alluding to the remarkable, but well-established fact, that in 1849 the cider districts of Herefordshire, Somersetshire, and part of Devonshire, were, to a great extent, exempt from the epidemic ravages of cholera, while the disease was raging around. Upon further inquiry, it was ascertained that this exemption was confined a good deal to those individuals who drank cider as a common beverage, and that those who partook of malt liquor occasionally suffered. He also remarked that, in some parts of France, and Normandy more particularly, where cider is the common beverage,

cholera is seldom known to exist; and further, that Switzerland was reported to have been free from its visitation.

Having adduced these and other facts in proof of the prophylactic power of cider, the author expressed his opinion that other vegetable acids would be found of service, such as lemon-juice, orange-juice, and sour wines made from grapes, or even from gooseberries. And as it would be found impossible to supply the whole of London with a sufficient quantity of pure cider, Mr. Tucker suggested that *vinegar* might be found a useful substitute in case of another outbreak of cholera, provided that it could be obtained in a state of purity. In confirmation of his view of the sanative and medicinal virtues of vinegar, the author quoted Hippocrates, who (*de natura muliebri*) "employed white vinegar medicinally"—Plutarch and Livy, who refer to the use of vinegar by Hannibal, in his passage over the Alps, when he is said to have "softened the rocks with fire and vinegar," an operation which the author facetiously regarded as rather metaphorical than chemical, as the vinegar, swallowed by the troops, probably sustained their strength, and thus in effect softened the asperities of their rough way. The author also quoted from Roman history the story that "Scipio Africanus is said to have gained a great battle with a few skins of vinegar," the troops refusing to march until the general had obtained a supply. Cæsar was also reported to mention in his Commentaries the supply of vinegar to the troops; and Mr. Tucker remarked that the drink of the Romans in all their campaigns was vinegar and water, and, sustained by that beverage they conquered the world. Modern authors (Sir John Pringle, Sir Gilbert Blane, and others) were also quoted in proof of the antiseptic and medicinal qualities of vinegar. The author then proceeded to show that acid drinks were not only preventive, but remedial in epidemic disorders of the bowels. Cases were related, in which not only persons were exempt from attacks of cholera raging around them, who drank large draughts of cider, but a case of severe cholera was also related, which yielded to the diluted juice of sour apples. The efficacy of the *Mineral Acids*, especially the sulphuric, in diarrhœa, and especially in choleraic diarrhœa, was also advocated by reference to numerous facts and authorities. He also referred to some established facts connected with the spread of epidemic dysentery in the army, showing the efficacy of vegetable acids in that disease.

In conclusion, Mr. Tucker suggested a necessary caution relative to the use of the wretched and unwholesome substitute for vinegar commonly sold in the London shops.

The discussion which followed the reading of the paper, elicited

ed many facts in confirmation of the author's views; and, as to the efficacy of sulphuric acid largely diluted with water, in choleraic diarrhœa, there was not a dissentient voice.—[*Lancet*.

On the use of Nitric Acid as an Anti-Periodic. By GEORGE MENDENHALL, M. D., Prof. of Obstetrics, &c., in the Miami Medical College of Cincinnati.

My attention has recently been called to the use of Nitric Acid in the treatment of intermittent fever; and as a substitute for quinine in this class of diseases is a matter of some consequence on many accounts, I am induced to lay it before your readers that it may more fully undergo the ordeal of experience and its true value be tested by different observers.

The facts upon which this paper is based, are taken mainly from an Inaugural Dissertation, presented to the Trustees and Faculty of the Miami Medical College, for the Degree of Doctor of Medicine, by E. T. Bailey, M. D., of Emmetsville, Ind.

He states, that in the section of country in which he resides, there is a large portion of marshy land, and therefore the circumstances are favorable to the development of autumnal fevers. His attention was first attracted to the use of nitric acid in the treatment of intermittent fevers, by noticing its effects in a case of chronic intermittent, which was attended with profuse night sweats, and for which complication he administered the remedy. In this case, there had been daily paroxysms for the preceding five days; night-sweats profuse, the tongue coated, and the bowels constipated. Nitric acid was given in doses of six drops, diluted with water, in the evening; and he was agreeably surprised to find that the paroxysms did not return on the following day; and this circumstance induced him to try its effects in other cases as an anti-periodic.

Since that time he has treated over ninety cases of intermittent fever with this article, with remarkable success. Of this number, all recovered promptly except ten, and in every one of these unsuccessful cases, the remedy was discontinued contrary to directions.

Fifteen of the whole number were of the tertian type, and seventy-five of the quotidian. In fifty cases, there was no return of the chill after commencing the use of the acid. The others were rarely attended by more than one paroxysm, and in no case by a third. When the patient had a paroxysm after taking the medicine, it was in every case diminished in intensity and duration.

In Dr. Bailey's practice, this remedy has entirely superseded

every other article for the purpose of interrupting the paroxysms of intermittents. His mode of proceeding is to give from five to eight drops of the commercial nitric acid, properly diluted, once in six hours, without regard to intermissions or exacerbations. Cathartics and alterants may be necessary for the purpose of changing certain conditions of the system; but so far as the interruption of the paroxysms is concerned, the acid may be given without any preparation of the system whatever, if we choose to do so.

The following cases are selected from among many others, in order to show the different varieties of the disease, and the mode of treatment pursued:

CASE I.—Mr. L. S., aged 55, of temperate habits, called upon him on the 12th of July, 1852. In May previous, he was attacked with intermittent fever, which was cured by quinine, but relapsed in six weeks, since which, the disease has continued with daily paroxysms. The tongue was furred, and the bowels constipated. A purgative of calomel and rhubarb was ordered at bed time. A violent fever followed the chill, which occurred at 11 o'clock, A. M., of this day. Five drops of nitric acid was directed to be taken every six hours, diluted so as to make a pleasant drink, to be commenced on the following morning at 6 o'clock, the 13th. The calomel and rhubarb produced two copious operations from the bowels, prior to commencing the nitric acid. Three hours after the exhibition of the remedy at 6 o'clock, as directed, a chill came on, followed by a high fever. The medicine was continued through the day.

14th. The patient is free from a paroxysm; no fever; the tongue clean and moist; and the medicine was directed to be continued as before.

15th. The tongue improving; bowels regular, and pulse very little excited; no chill. Medicine continued.

16th. Patient has entirely recovered.

Forty-five drops only were taken in this case, as the medicine was not given at night.

CASE II.—Sept. 10th, 1852, was called to see Master L. A., aged six years. He has had intermittent fever since the 6th inst., with daily paroxysms, followed by high fever. The tongue was moist, and the bowels open. Four drops of nitric acid were ordered, which was diluted as before, so as to be easily taken; one dose to be taken at 12 o'clock, and the second at 6 in the evening; to be resumed at 6 the following morning, and repeated at 12 o'clock.

11th. Visited the patient in the afternoon. He had not

had any chill; the tongue was clean and skin moist, with no excitement of the pulse. Discharged cured.

In this case, the medicine was discontinued to see whether the effect would be permanent.

12th. No return of the paroxysm. Sixteen drops were taken in this case.

CASE III.—Sept. 20th, 1853. Saw Miss D. N., aged 28. Three days ago, she was attacked with intermittent fever, the paroxysms of which commenced at 10 o'clock every day, and the chill was followed by high fever. A mild purgative was ordered at bed time; and sixty drops of nitric acid were diluted with two ounces of water, and directed to be taken in nine doses, at the rate of three doses per day, commencing on the morning of the 21st.

25th. Saw the patient to-day, and found that there had been no return of the paroxysms for three days. In this case, sixty drops were taken.

Several other cases are reported with the same result, but it is not necessary to repeat them here.

It is stated that relapses seldom occur—much less frequently than after the use of quinine, but upon this point more precision is required. It has been administered in all the various forms of intermittent fever which were presented to the author of the essay, and no unpleasant effects observed in any case. Should they be verified by the experience of others, this remedy will be found to be a valuable agent, and to possess the following advantages:

First. Certainty as an Anti-Periodic. *Second.* The power of invigorating the general system, while at the same time it has alterant properties. *Third.* Facility of exhibition, being much easier taken than quinine, barks, &c. *Fourth.* Freedom from the unpleasant effects which sometimes follow these remedies. *Fifth.* Cheapness of the article, which is often of considerable importance in miasmatic regions.—[*Western Lancet.*]

On the Influence of Opium as a means of Preventing and Removing some of the Injurious Consequences of Over-work and Anxiety. By Dr. JOHNSON, Assistant-Physician to King's College Hospital.

The following interesting and practical remarks are from a course of lectures on materia medica and therapeutics, delivered before the College of Physicians in 1853. Dr. Johnson proceeds:—

When all that is possible has been done for avoiding the cause of mental worry, and when all needful advice and en-

couragement has been given, we have next to direct our attention to the consequences, some of which will often continue long after their exciting cause has ceased to operate; while others are perpetuated by some persistent and unavoidable source of anxiety. Now, the first and the most frequent consequence of over-work or anxiety—the one too, which, more than any other, is productive of further mischief—is restlessness, or some form of disturbed and unrefreshing sleep. And the chief cure for this, after the causes have been as much as possible avoided, is an opiate at bedtime. So far as I can see, it is of little importance what preparation of opium or of morphia is used. For hospital patients I generally order the compound soap-pill; one advantage of which is, that its name does not indicate its opiate nature. The dose must vary according to circumstances. In ordinary cases five grains, of the pill, that is, one grain of opium, may be taken every night at bedtime. In a case of much excitement, with extreme restlessness or a threatening of delirium, the dose must be double or treble that which I have mentioned. In such cases, however, the opium would be best given in a liquid state—in the form of tincture, or the solution of the muriate or acetate of morphia.

The time for the continued exhibition of the opiate must vary according to circumstances, and will be much influenced by the success of the treatment. The object is to break the habit of dreaming restlessness, and to procure sound and refreshing sleep. In many cases this object may be attained by the nightly repetition of the dose for one week. It is seldom necessary or desirable to continue the medicine for more than a month, though in some cases, it may be expedient and beneficial to extend the period considerably. In many cases I have found that the beneficial effects of the medicine have been immediate; the patient has slept soundly, the distressing dreams have ceased, the appetite has returned, and all the symptoms which depended on loss of sleep and loss of appetite have quickly disappeared. After a few nights of sound sleep have been procured by the opiate, the dose should be discontinued, and in most cases the patient will continue to sleep as well without the medicine as with it. There is, probably, no one medicine which has the power of quickly removing such a multitude and a variety of distressing symptoms as opium, when its action is really favorable in the case to which I refer. It is not, however, to any specific efficacy residing in the opium, but to the marvelous influence of sleep in refreshing both body and mind, that the benefit is really due. The value of the opiate consists in the fact, that, on the whole, it is the safest and most certain means of procuring sound sleep.

*The use of opium as a medicine is sometimes attended with unpleasant consequences, and it does not always effect what is desired. I proceed now to indicate some of the unfavorable results of the opiate treatment, and the precautions which ought to be observed in the use of the medicine. One of the most frequent discomforts attending the use of opium is a feeling of nausea and faintness, either with or without headache, in the morning after waking. The best cure for this is a cup of coffee or tea, with some solid food, followed by a walk in the open air. In many cases the opium, although at first it may disagree, yet produces no unpleasant effect after the second or third dose.

The nervous patients who require the method of treatment which I am advocating, almost invariably suffer from constipation,—a torpid condition of the bowels, being, in fact, one of the natural consequences of the general debility which characterizes the patients in question. Although the immediate effect of the opium is to increase the constipation, yet its ultimate tendency is to restore the regular action of the bowels, by means of the invigorating influence derivable from sound refreshing sleep, and an increased appetite for food. The temporary constipation may readily be obviated by an occasional mild aperient—a seidlitz powder, or a compound rhubarb or colocynth pill. The inconvenience arising from the astringent effect of opium upon the bowels is so easily met and removed, that it would never deter me from giving the medicine in any case which appeared to require it.

One of the most serious objections to the use of opium, is its tendency, in some cases, to produce an effect the direct opposite of that which we require,—to produce wakefulness and excitement, instead of sleep and composure. It is only in a small proportion of cases that this difficulty arises. It may sometimes be overcome by changing the form of the medicine, or by increasing the dose of the opium or morphia, and, in other cases, by combining the opiate with a moderate dose of antimony—James's powder, or tartar emetic—a combination which has been strongly recommended by Dr. Graves to procure sleep and check delirium in some cases of fever. It must, however, be admitted, that some patients cannot tolerate opium in any form or in any dose; and nothing can better show the value of this drug than the difficulty of finding a substitute for it. We may try henbane and hop, and these will sometimes effect our object; but their action is very uncertain in comparison with that of opium.*

*Since this lecture was delivered, I have found reason to believe that one of the best substitutes for opium in the cases referred to, is Chloroform, in doses of from *m x* to *m xx*, made into a draught with mucilage.

It is well to remember that an opiate enema will sometimes procure refreshing sleep, when opium, in any form administered by the mouth, is either quite inoperative, or productive only of distressing excitement or sickness.

But may not the frequent repetition of an opiate dose become a necessity for the patient? May we not be instrumental in making him an opiumeater? I admit that the danger of such an evil, if real, would be a very fearful one. There are few results of medical practice which I should regret more than the reflection, that I had in any way contributed to render a recourse to narcotics or stimulants habitual or necessary to a single patient. I believe, however, that a cautious use of opium is attended with little danger of leading to so terrible an abuse of the drug.

In giving opium to hospital patients, I never tell them what they are taking; and one reason for preferring the compound soap-pill, in such cases, is, as I have before intimated, that the nature of the medicine is not apparent from the prescription, if the patient should read it. The opium should be discontinued as soon as it can be dispensed with,—as soon, that is, as restlessness and frightful dreams have ceased to harass and exhaust the patient. The rapid convalescence, and the renewed health, and strength, and spirits, which are wonderfully promoted by securing sound and refreshing sleep, will generally enable the patient at once, and without difficulty, to dispense with the use of opiates. I should withhold opium from a patient who neglects any directions which I have given him as to exercise, diet, and the general management of himself, and whose restlessness and nervousness appear to result from such negligence. In other words I would not encourage a patient to trust habitually to opium for the removal of discomforts which might be avoided by the exercise of self-control, and by obedience to natural laws.

I beg to make an earnest protest against the routine practice of giving opiates to every patient who complains of inability to sleep. Our first care must be to discover, and then to remove the cause of the sleeplessness. We shall meet with some indolent patients, for whom the best soporific is regular employment and daily active exercise in the open air; for others, who are feeble, tonics and nutritious food will be the appropriate remedies; and again, in other cases, dyspeptic symptoms will cease, and refreshing sleep will return, under the influence of an occasional aperient and carefully regulated diet. In most cases of this kind, the exhibition of opium would not only be unsuccessful, but positively hurtful.

* * * * *

The cases in which the opiate treatment is most rapidly and completely successful are those in which the nervous symptoms are the result of some past grief, or anxiety, or fatigue, the impression of which remains, and is perpetuated by the patient's inability to obtain refreshing sleep. In such instances, a few nights of sound sleep, procured by means of the opium, rarely fail to effect a rapid cure, and this, too, after the nervous symptoms have continued for many months, or even for years.

Another class of cases in which equal benefit is often derived from a similar method of treatment, are those in which nervous restlessness has been induced by continued overwork, whether mental or bodily. In such instances, it is obviously desirable, as I have before intimated, that the patient should rest, or diminish his labors, if possible; but the patient may assure us that he has no alternative but to go on with his work, or to lose his employment, and with it his means of living. In such a case, we may often prevent overworked men and women from breaking down, and enable them to go on in comparative comfort, by giving an opiate nightly for a week or two. Refreshing sleep will be induced, the appetite will return, and, as a consequence, the strength and spirits will revive. and the strength and spirits thus obtained are not false and artificial in the same pernicious way as the stimulus obtained from alcohol, by which too many are tempted in the circumstances to which I have referred. The temporary help which a languid body or mind derives from alcohol is generally followed by a corresponding amount of depression, and with this there comes a craving for the repetition of the stimulant. Another bad result of the too free use of alcohol is a loss of appetite and an impaired power of digestion. Now, the effects of the opiate plan of treatment, conducted with the precautions to which I have before alluded, are in most respects the opposite of those produced by alcoholic stimulants; for we seek, by means of opium, a natural remedy for fatigue, that remedy being sleep, which brings with it a desire for food, and the power to digest it. Alcohol is taken for the sake of the immediate stimulus; the subsequent depression is the drawback upon its utility as a means of keeping up the working powers. The object in giving opium is to obtain, not its stimulant effects, which are comparatively slight and transient, nor immediately its composing influence, but the refreshment which follows the latter, and which has nothing corresponding with it among the ordinary consequences of alcoholic stimulants.

My objections to the *abuse* of alcohol as a stimulant do not, of course, apply to the use of wholesome wine and beer as arti-

cles of diet by those who require them, and who appear to derive benefit from them. Moreover, there are certain cases of nervous disease in which some form of alcoholic stimulant may be given with great advantage, either alone or in conjunction with opium. I refer to cases of extreme restlessness, either with or without delirium, and whether resulting from intemperance or from grief, or watching or fatigue, when the bodily powers are very feeble, although under the mental influence there may be great excitement. In these cases repeated large doses of opium sometimes fail to procure sleep, but appear rather to have a depressing influence: the patients skin becomes cold, and is bathed in perspiration, while the delirium and excitement continue. In such circumstances, the continued use of the opium is not only useless, but injurious and dangerous; and the surest mode of arresting the collapse, and of procuring sleep, is to give freely either wine or brandy, or in cases of intemperance, the stimulant to which the patient has been accustomed, with beef-tea, or some other form of nourishment.

It is scarcely necessary to observe, that in all cases of nervous disease we must carefully watch the signs of functional disturbance or of structural change in any organ of the body, and that we must meet such symptoms by the appropriate remedies. And although, in most instances, a tonic plan of treatment is required, yet we must not hesitate to resort to measures of depletion if they are called for by the occurrence of such organic disease as appears to need this treatment.

The cases which are least favorable either for the opiate or for any other plan of treatment are: 1st, cases of confirmed hypochondriasis or melancholy of very long duration, and especially when these have the character of religious despondency; 2dly, cases in which extreme nervousness has resulted from great terror, or from a sudden shock, which has left a deep and durable impression upon the mind and nervous system; and lastly, cases in which the symptoms are perpetuated by some constant source of anxiety or sorrow.

These classes of cases, although very unfavorable, and often little benefited by any plan of treatment, whether medical or moral, are yet by no means hopeless nor always incurable. Their unfavorable and unmanageable character is, however, greatly confirmed when they are complicated with epilepsy; and this whether the epilepsy has been induced by a sudden shock of grief or terror, or whether it has supervened upon long-continued anxiety and nervousness.—[*Buffalo Medical Journal*.

Researches on the use of Veratrine in the treatment of febrile diseases, and particularly Pneumonia, Typhoid Fever and acute articular Rheumatism, &c., by DR. ARAN. Translated from the French, by A. SAGER, M. D.

In a patient with acute articular Rheumatism, the medicine was given alone for twenty-four hours. Three centigrammes had been quite accidentally combined, in six pills. The physiological effect was of the most marked character. But what more especially attracted attention was the great diminution in frequency of pulse, falling from 112 to 64, and even to 48 per minute.

In reading the more recent researches on the therapeutic action of veratrum viride, the author learned that an American physician, Dr. Norwood, regarded that plant as a certain remedy against all febrile affections, whatever might be their origin.

He immediately resorted to clinical experiments; and from the first series of observations our learned associate furnishes us with results of his investigations on veratrine in pneumonia.

In order to give an idea of the nature of the cases in which it has been tested, we will furnish here merely the heads of his observations, viz :

1st Obs.—Double pneumonia with pleuritic effusion in the right side. Antiphlogistication, veratrine, amelioration, relapse, cupping and vesication of the chest, veratrine in large doses, rapid recovery.

2nd Obs.—Pneumonia of the right side, treated by blood letting; persistence and aggravation from accidents, use of veratrine; rapid recovery.

3d Obs.—Pleuropneumonia of the right side in a tuberculous subject, treated exclusively with veratrine; rapid cure.

4th Obs.—Pneumonia of the right side in a tuberculous subject treated by veratrine; rapid amelioration, then signs of relapse; blister and veratrine continued; cure of the pneumonia; formation of a tuberculous cavity in the opposite side during convalescence.

5th Obs.—Pneumonia of the left side in a female of 70 years, treated without success with venesection and Tart. Ant et Pot.; veratrine used. Patient cured.

6th Obs.—Capillary Bronchitis and double pneumonia in a female of 69 years, the gravest complications, veratrine used in full doses; unexpected amelioration, relapse, death.

The detailed observations, furnished by the author in reference to those cases show—

1st. That in most cases, even after the first dose, but more

frequently still, after the second or third dose of 5 milligrammes, the patient was affected with nausea, retching and vomiting, sometimes with hiccough, seldom with alvine dejections, and still more rarely with a sensation of burning in the esophagus and stomach. These symptoms, continued as long as the veratrine was exhibited in sufficient doses.

2d. That in each of these six cases the pulse fell, in the first 24 hours of its exhibition, from 24 to 60 beats. The rhythm was not at first affected, but while it became slower, it likewise grew smaller and feeble. In some cases, however, it became also vibrating, dicrotic, and very depressible, when the slowness became extreme, the regularity was frequently interrupted by the intermission of two or three pulsations.

3d. That from the first to the second day of the treatment, the respirations were diminished to six per minute.

4th. That in every case the depression of temperature was extremely marked, the skin however dry and burning at first, became moist, cool and often bathed in perspiration.

To these diversified modes of physiological action, we must add its therapeutic agency, viz: The cough was always much diminished, the dyspnœa entirely disappeared, and the expectoration becoming much more easy, lost also much of its characteristic rusty hue. The physical signs were, however, less influenced by the medication than the general symptoms enumerated. In conclusion, Dr. Aran, in consideration of its violent action, thinks it should only be used in cases of great gravity and complication. It should be cautiously employed in a great number of cases, and the indications for its employment clearly made out before it should be admitted into the list of therapeutic articles.

In a second memoir, the author treats especially of its use in acute articular rheumatism.

From the considerations which he adduces on this subject, it results that veratrine is not a remedy of great utility in arthritic affections, and especially that it exerts but little influence over the pain which accompanies the disease.

He has observed that while in this disease as in pneumonia, nausea, vomiting and hiccough occur; the depression of temperature and of the pulse was much less marked. He exhibits in conclusion the effect of the treatment of 8 cases of acute articular rheumatism with veratrine. In two cases of very acute disease, it completely failed; in four cases, a cure was rapidly effected, and in two similar cases it was impossible to continue it, because of the perfect intolerance of the remedy. He infers therefore that it is not entitled to the first rank as a therapeutic agent in this disease; that it should not be relied on

as a general method of treatment, and thinks it more especially indicated in cases with endocardial or pericardial complication.—*Gazette Medical de Paris. Peninsular Jour. of Med.*

Cause and Treatment of Prolapsus of the Rectum. By M. DUCHAUSSAY.

In a short but interesting memoir, M. Duchaussay reviews the circumstances attending this troublesome complaint, and fixes attention in particular upon the loss of power in the sphincter and muscle as the chief cause of the descent of the bowel. Moreover, he endeavors to show that Dupuytren's operation, by excising the radiating folds of skin around the anus, and the operation by four touches with the actual cautery, practiced by Guersant, act not by causing any subsequent retraction of the cellular tissue, skin, and mucous membrane, but rather by stimulating the sphincter muscle so that it regains its contractility, and therefore its retentive character. How else, asks M. Duchaussay, do we explain the fact, that the prolapsus is often cured, or does it return after two days, or even after one day, or not at all after the operation? He points out the fact, that in case of this disease in infants, three fingers may sometimes be introduced without causing contraction of the sphincter, before the operation by cautery, whilst afterwards, if one be passed, a powerful contraction of the sphincter immediately ensues. As proof that this recovery of contractile power by the sphincter is the cause of cure, a case is mentioned in which M. Guersant had used the cautery too superficially, the sphincter failed to contract, and the disease returned. A second cauterization was followed, on the contrary, by return of the muscular contractility, and the cure was complete.

According to the author, the cautery acts as a stimulant to the paralyzed muscle, just as it will to the deltoid in a like condition. After pointing out the inconveniences and apparent severity of M. Guersant's method, M. Duchaussay suggests that a slighter cautery, or some other stimulant to muscular contractility, might act as well, and he suggests strychnine. This, with M. Guersant's permission, has been tried in the *Hopital des Enfants*, in the case of a girl aged eleven years. The prolapsus here arose from obstinate constipation; it had lasted for four years; the bowel protruded at each evacuation about ten centimetres (—4 inches). During the first month of her admission she was treated by laxatives only, with no other result than that of diminishing the length of the protruded portion of bowel to about four centimetres ($1\frac{1}{2}$ inches). Strychnia was then employed endermically near the region of the sphincter:

the next day there was no evacuation; on the following day the bowels acted once, only a slight bulging of the rectum taking place; on the third day the protrusion was still less after an ordinary evacuation; and during the next thirteen days it did not occur again.

Blisters were made in the cleft between the nates, and on the right thigh close to that cleft; one-sixth of a grain of strychnia was applied the first day, one-third on the second, and one-third on the fourth day. On the fifth day, about half a grain of sulphate of strychnia was used, and this was repeated for the last time on the sixth day. In the case of a boy, it is recommended to be applied between the scrotum and anus, immediately over the anterior interlacement of the sphincter ani fibres, The remedy certainly deserves further trial.—[*Archives Gén. de Méd. North Western Med. and Surg. Jour.*

Note on the Foramen Ovale and the Ductus Arteriosus. By M. FLOURENS.

I. OF THE DUCTUS ARTERIOSUS. 1. *The period when the Duct is completely closed.*—In the India pig, at 12 days; the rabbit, 16 days; dog, 23 days; the calf, between one and two years. In man it is not closed at the 18th month.

2. *Filaments of the Ductus Arteriosus.*—These exist in no animals examined by me except the calf and the horse. In the calf, I have found them at two months.

3. *How these filaments are disposed at first, and the mode in which they unite to effect the Closure of the Duct.*—The filaments never exist alone; they are always developed with a membrane, whose margin is adherent to the posterior edge of the opening. The filaments rise to the number of twelve or fifteen at least, from the free margin of the membrane. But they almost immediately unite together, separating again to unite a second time, thus forming a net work, increasing in size as it leaves the margin of the membrane. This mesh, so to speak, suspended in the left auricle, terminates by three or four filaments, which go to be inserted into the left surface of the wall of the auricles, at one-half a centimetre from the anterior margin of the foramen ovale. These terminal filaments, in lieu of their insertion in the wall of the auricles, form the arches of a bridge; the middle arch is larger than the rest.

In proportion to the development of the animal, the net of filaments thicken; in proportion to this thickening the meshes disappear. The terminal points of insertion are always in the same number, and in the same situation. After a while there

remain but three or four arches formed by the free margin of the membrane, and its filaments much thickened and much shortened. The arches finally disappear by the same process; the communication between the auricles is cut off. Before this orifice is entirely closed, there exists a very oblique canal, which extends from the right auricle to the left. Sometimes this passage continues in the adult, (cow, sheep, etc.)

In animals which have not these filaments, the mechanism is somewhat similar. Here, also, it is by the thickening of the membrane, and by its insertions in the left auricle, that the foramen is closed; and there is a very oblique canal which may exist in the adult, (dog, rabbit, man, etc.)

II. DUCTUS ARTERIOSUS. *Period when the Duct is completely obliterated.*—In the dog, in 36 days; in the rabbit, in 26 days. In man, I have examined the duct on at 18 months to 2 years—it was not entirely closed. The ductus arteriosus appears to close first at its middle, the two extremities remain open for some time after the centre is closed.—[*Philadelphia Med. and Surg. Jour.*

Remedy for Hydrophobia. By W. N. HURT, of Kilmichael, Miss.

There is no disease to which the human family is liable, that has been the object of so much speculation and experiment as Hydrophobia; in order to find out an appropriate remedy and with so little success. Every remedy heretofore that appeared to be successful at first, has on further trial been found useless. It is my present object to offer to the public a remedy, the efficacy of which is so well attested that I think it well worthy of a fair trial; it was given me by my old friend Thomas Harvey, who states he has used it in a great many cases, and assures me it has never failed in a single case. I have also seen many of his patients who fully corroborate Mr. Harvey's statement. It not only proves an effectual remedy in all stages of the disease but as a prophylactic of superior efficacy, always preventing an occurrence of the disease when given to a person that has been bitten by a rabid animal and before the period of incubation.

R. root of *Phytolacca* 1 lb
new milk, xiv oz.

Slice the root and boil it in the milk down to 7 oz., press the liquid thoroughly from the mass through a fine cloth. Half a tea-cupful to be taken every hour until the disease disappears, when it should be gradually discontinued. When given as a prophylactic the above amount may be given four or five times

a day for eight or ten days, it will nauseate, vomit and purge. The patient should take nothing but low diet during the treatment. Be particular to get out all the pulp of the root from the liduid.—[*Southern Journal of Med. and Phys. Sciences.*

EDITORIAL AND MISCELLANY.

BIBLIOGRAPHICAL.

Principles of Comparative Physiology. By WM. B. CARPENTER, M.D., F.R.S., F.G.S., &c.—with 309 wood engravings. A new American, from the 4th and revised London edition. Philadelphia: Blanchard & Lea. 1854. 8vo., pp. 752.

The intrinsic merits of Prof. Carpenter's works upon Physiology have secured to them a position that cannot be bettered by any individual encomium. The splendid and valuable book above named is eminently creditable to both the author and his publishers. Every physician should own it, for there is no better way to learn human physiology than by the study of the functions of life as modified by the various organizations of animated nature. To every man who has any taste for natural history, the perusal of this work will be quite a treat, as it is certainly more complete than any of the kind in our language.

The Principles of Animal and Vegetable Physiology: a popular treatise on the functions and phenomena of organic life—to which is prefixed a general view of the great departments of Human Knowledge. By J. STEVENSON BUSHNAN, M.D., &c.—with 102 illustrations on wood. Philadelphia: Blanchard & Lea. 1854. 12mo., pp. 230.

It is always pleasing to see attempts made to popularize the love of science. The object of the little book before us is not so much to teach science as to awaken a desire for its knowledge in those who would shrink from such a volume as that of Carpenter, and yet be willing to look through a small one, purporting to impart pleasure as well as information. This is one of the series published in England under the title of "Orr's Circle of the Sciences," and is remarkably well adapted to the purpose for which it is intended.

The principal forms of the Skeleton and of the Teeth. By Professor R. OWEN, F.R.S., &c. Philadelphia: Blanchard & Lea. 1854. 12mo., pp. 330.

This, like the work just noticed, is one of "Orr's Circle of the

Sciences. It is written by the most distinguished Comparative Anatomist of England, the Cuvier of Great Britain. As a popular monograph upon a topic of general interest, it will doubtless be extensively read.

On the Nature, Signs and Treatment of Child-bed Fevers ; in a series of letters addressed to the Students of his Class. By CHARLES D. MEIGS, M. D., &c., &c. Philadelphia: Blanchard & Lea. 1854. 8vo., pp. 360.

Our indefatigable confrere, Professor Meigs, has just favored us with another of his valuable contributions to practical medicine. The work before us is in the epistolary, free, and familiar style which has made the writings of our distinguished friend so popular. This monograph will be found to fill an important gap in our medical literature, and to sustain the high reputation of the author.

A Dictionary of Medical Terminology, Dental Surgery, and the Collateral Sciences. By CHAPIN A. HARRIS, M.D., D.D.S., &c., &c. 2d edition, carefully revised and enlarged. Philadelphia: Lindsay & Blakiston. 1855. 8vo., pp. 800.

The title page of this work explains its character; and the demand for a second edition shows that it has been found useful. It is intended more especially for those who practice Dental Surgery than for the general practitioners of Medicine, but may be consulted advantageously by all. The multiplication of works upon Dentistry, their extensive sale, and the liberal patronage of the several schools of Dental Surgery, constitute an American peculiarity to which no one has so much contributed as Prof. Harris, who by his zeal and ability has placed his profession upon higher grounds in the United States than it enjoys in any other country.

On the construction, organization and general arrangement of Hospitals for the Insane. By THOMAS S. KIRKBRIDE, M. D., Physician to the Pennsylvania Hospital for the Insane. Philadelphia: Lindsay & Blakiston. 1854.

The Profession should feel under obligations to Dr. Kirkbride for the collection in this small volume of much useful information, not otherwise attainable without much labor. In no particular is the nineteenth century more marked for benevolence than in the management of the Insane. This work is full of valuable suggestions, and ought to be carefully studied by all who may be connected with the establishment or supervision of Lunatic Asylums.

Résumé de Recherches Cliniques sur la fièvre continue la Dysenterie, la Pleurésie Chronique, et sur les variations du ton dans les sons.

This is a French translation of the several clinical works of Prof. Flint, to which we have already adverted at the time of their publication in this country. It is gratifying to perceive in this a just appreciation of our countryman's genius and talent for observation.

The Physician's Visiting List, Diary, and book of engagements, for 1855. Philadelphia: Lindsay & Blakiston.

A most convenient pocket-book, which every practitioner ought to procure.

We are indebted to authors and publishers for a large number of pamphlets, among which are the following works:

Transactions of the Medical Society of the State of Pennsylvania, at its annual session held in the city of Pottsville, 1854.

The Minutes of the fifth annual meeting of the Medical Society of the State of Georgia, held in the city of Macon, April, 1854.

Besides the Minutes of the proceedings of the Society, this work contains a list of the Officers and Members, the Constitution and By-Laws, a Report "on the relative value of Lithotripsy and Lithotomy," by L. A. Dugas, M. D., and a Report "on Chloroform in Surgical and Obstetric Practice." by Joseph A. Eve, M. D.

Proceedings of the American Pharmaceutical Association at the third annual meeting, held in Cincinnati, July, 1854.

Report of the Special Committee of the Board of Regents of the Smithsonian Institution, on the distribution of the income of the Smithsonian fund, &c. 1854.

The Voluntary System of Medical Education, instituted by the Independent Medical School of Pennsylvania. 1854.

Insanity in Italy. By John M. Galt, M. D., of Virginia.

Elkoplasy or Anaplasty applied to the treatment of old ulcers; also, a new mode of treatment for delayed or non-union of a fractured Humerus. By Frank H. Hamilton, M. D., &c., &c., of Buffalo.

Statistics of the Medical Profession of the United States. By C. A. LEE, M. D.—By the census of the United States of 1850, we learn that there are 40,564 Physicians in the United States. Whether this includes the irregular practitioners and quacks we are not informed, but presume that it does not. The reader will perceive; by consulting the following table, the number of practitioners in the U. States and in each State of the Union, the ratio of practitioners to the

population, and the number of square miles in each State and Territory :

STATES.	No. of Physicians.	Population.	Ratio of Physicians to population.	No. of Inhabitants to square miles.
Maine,	659	583,169	854	12.52
New Hampshire,	623	317,976	510	39.6
Vermont,	663	314,120	473	39.26
Massachusetts,	1643	994,514	605	137.17
Rhode Island,	217	147,545	679	122.95
Connecticut,	560	370,792	662	78.06
New York,	5060	3,097,394	612	67.33
New Jersey,	608	489,555	801	71.46
Pennsylvania,	4071	2,311,786	570	49.19
Delaware,	114	91,532	838	43.17
Maryland,	990	583,034	588	53.00
District Columbia,	104	51,687	496	1033.74
Virginia,	2163	1,421,661	657	23.17
North Carolina,	1083	869,039	802	19.1
South Carolina,	905	668,507	738	23.87
Georgia,	1295	906,185	699	15.62
Florida,	135	87,445	647	1.48
Alabama,	1264	771,623	610	15.21
Mississippi,	1217	606,526	498	12.86
Louisiana,	912	517,762	567	12.52
Texas,	616	212,592	346	0.65
Arkansas,	449	209,897	465	4.02
Tennessee,	1523	1,002,717	658	22.79
Kentucky,	1818	982,407	540	26.07
Ohio,	4263	1,980,329	464	49.55
Michigan,	854	397,654	465	7.07
Indiana,	2170	988,416	455	29.24
Illinois,	1402	851,470	607	15.37
Missouri,	1351	682,044	504	10.49
Iowa,	542	192,214	354	3.77
Wisconsin,	581	305,391	525	5.66
California,	626	92,597	147	0.49
TERRITORIES.				
Minesota,	13	6,077	467	0.04
New Mexico,	9	61,547	6338	0.29
Oregon,	45	13,294	295	0.04
Utah,	16	11,380	711	0.06
TOTAL,	40,564			

The total population is 23,191,876 ; the ratio of practitioners to the whole population is one to 571. California is better supplied with Physicians than any other part of the United States, there being one to every 147 inhabitants, while New Mexico is the most deficient, there being but one to 6,838 inhabitants. Considering the sparseness

and thinly scattered state of the population, in most parts of the Union, it may well admit of doubt, whether the surplus is very great. That it is so in the older and comparatively more settled States is sufficiently obvious.

The mortality among medical practitioners is greater than among any other class of men; we believe, taking the whole United States, that it will not fall short of one in twenty-five, annually. This will give a total of 1622 deaths, which are to be supplied from our medical graduates. Considering that large numbers of young men, especially from the Southern States, are educated to the profession, without any view to practice, and that many more enter upon other pursuits, and engage in other and more profitable callings, the number of those who annually graduate from our medical colleges will not appear disproportionately large; we do not know the exact number, but suppose it will not vary far from 2000.—[*Buffalo Med. Journal*.

Mortality among Children. By W. A. ALCOTT, M. D.—The Boston Journal for August 10, has an article, copied from the Baltimore Patriot, on the mortality of children, which is deserving the attention of those whose office should be not only curative but preventive. I copy from the article as follows:—

“In the cities of New York, Philadelphia and Baltimore, last week, out of a total of 1,724 deaths, 1,025—within a fraction of two-thirds of the whole number—were children under five years of age.”

Now as there is no date to the article of which the foregoing is a part, it is not in my power to say precisely *what week* the writer refers to; but it is a fair inference that it was recent. Nor am I able to say by what arithmetic or logic, 1,025 is made out to be “within a fraction of two-thirds” of 1,724. It would be more nearly three-fifths of the whole. Still the fact is a terrible one. Many have thought the statement so often made by myself and others, that two-fifths of our population, *taking the year together*, die under five years, an exaggerated one; but here is a mortality of three-fifths for a particular period.

The writer in the Baltimore Patriot, in his comment on the dreadful fact, justly observes:—“There is certainly some cause for this, and it is due to the science as well as the philanthropy of the age, that this cause should be distinctly ascertained and pointed out.” Again he says:—“A close examination of the subject, we doubt not, would show that it is chiefly among those who are surrounded with all the comforts, and, in many instances, with the luxuries which riches command, that infantile diseases find their most numerous and unresisting victims.”

With one qualification, Messrs. Editors, I can subscribe most fully, to the truth which is suggested in the latter quotation. Instead of saying “riches” in a country where almost every pauper is rich enough to have his appetite tickled and gratified, I would say “money and a shortsighted selfishness.”

In regard to the cause of this fearful and fearfully increasing infantile mortality—for there are doubtless more causes than one—I have something to say, suggested by the study of the subject for thirty years

or more. And though I lay no claim to infallibility, I do greatly desire to be heard.

My first suspicion rests on the too free use of alkalies among us. I say "the too free use," because, although I should not be likely to encourage their dietetic use, in any quantity, or in any circumstances of *health*, yet there is certainly a wide difference between excess and moderation. It is one thing to use just so much saleratus as shall be neutralized by the acetic acid it meets with, so as to leave no residuum but a little acetate of potash, and quite another to use the alkali so freely that a portion of it remains in the stomach and intestines unneutralized. Yet the latter is an every-day occurrence. Our children, generally, have their first passages in a state of sub-inflammation, from this and other kindred causes; and though the use of mild acids, especially those of fruits, may do something to soften or mitigate the condition, is it any wonder that bowel complaints, in these circumstances, become very severe and unmanageable? Is it any wonder that two-fifths, and in summer three fifths of all who are born, die under five years of age?

I have no doubt that quackery and humbuggery, as well as many more things, tend to a fatal result in these cases; but I can say no more in a single number. You may possibly hear from me again.

AUBURN DALE, August 15th, 1854.

Mortality among Children, No. 2.—When I call to mind that the character of your work varies somewhat from that of its predecessor—whose motto was "The best part of the medical art is that of avoiding pain," I begin to doubt whether you have room for short articles from time to time on prevention. And yet, medical men in general are not so lost to philanthropy, and even to common humanity, as not to look a little at prevention now and then. They know something of the pain I have often experienced on reflecting that while I have been the means, apparently, of extending the lives of some of my consumptive patients from one to thirty years, it has had one terrible effect which philanthropy herself scowls at—it has served to propagate and perpetuate a feeble race. Still, cure we *must have*, and *will have*; and postponement and palliation. It wont do to let the feeble die off if we can help it.

The subject I broached in a late number of the Journal on infantile mortality is one of serious and alarming import. The paper from which I quoted was probably correct, for during the week ending about the middle of August, the New York Independent states the whole number of deaths in the three cities I have mentioned, at 1,790; while that of those under 5 years of age was 936, considerably more than half, still. Such a mortality is indeed frightful. What are we to think of the habits of people when half the children in families die under 5 years of age? What would be thought of the good sense and right treatment of domestic animals where half the lambs, pigs and chickens should die thus prematurely?

I spoke of the use of saleratus as in the front of a long list of transgressions. I ought to have particularized. Dr. Hammond, of Kil-

lingly, Ct., first called my attention to this subject, ten or twelve years ago. He confessed to the use of ten pounds in his small family in a year, and said he was very far from being alone. Soon after that I went down East, and learned something of the state of things in New Brunswick and Maine. I found that in Bangor ten or twelve pounds a year were very common. So I found it afterwards in some portions of Massachusetts and Connecticut. Col. Ivers Phillips, of Fitchburg, five or six years ago, told me that in a family of ten persons they used twenty-five pounds a year; and Mrs. P., who was present, endorsed the assertion. The smallest quantity I have known used in any ordinary family, except my own, is about five pounds. In Ohio, families who were at first disposed to sneer at my statements, confessed to the use of six or eight pounds yearly.

My deliberate conviction is, that the families of twenty millions of people in our United States population—amounting to about four millions—use the average quantity of five pounds of this alkali yearly—or one pound to each individual. This is an aggregate of twenty millions of pounds. How much of this goes into the alimentary canal and courses its devious way without meeting with any free acid or other substance calling into play new affinities, cannot easily be told. In these days of excess in its use, I fear one half. But to be safe, I will place it at one-fourth. Is it so, then, that the lining membranes of our people—our children among them—must be irritated yearly by 5,000,000 pounds of uncombined—unneutralized salætatus? The very thought is enough to make one shudder!

From ten to twenty grains of this substance is sometimes put down in our medical dictionaries as a dose. Place it at thirty. Do we swallow 960,000,000 doses of medicine a year, in this careless, uncalled for manner? What effect can medicine be likely to have, when given in an emergency, to children who have been irritated day after day, and year after year, in this way? I have said irritated—not poisoned. Yet, Orfila, I find, calls salætatus an irritating poison, and gives us a long list of its terrible symptoms. I need not detail them in a Journal designed for the profession; but they ought to be hung up in letters so large that they could be read at any distance all over the country. They would make some of our house-keepers stare—and it ought to be so.

Let us make one more estimate. I have not facts to bear me out in what I am going to do, because I have not the patience to gather them up—scattered as they are up and down the earth's surface. But I suppose four maximum medical doses of this article, taken at once, would be called excess; and this excess would be evinced by some or all of Orfila's "symptoms." In short, the individual who should take such a dose would be poisoned. I do not say he would certainly die, for I am not warranted in this. But I do say that, in all probability, he would not greatly desire to take another such dose immediately. But 5,000,000 pounds of this alkali—the quantity we suppose to be swallowed yearly unneutralized—would at this rate be 240,000,000 doses of the poison. It would poison all our 20,000,000 of white

people in the Union, twelve times each, or once a month, for the whole year. But enough for the present.

AUBURN DALE, August 25, 1854.

Mortality among Children No. 3.—One fruitful source of infantile mortality is medicine. Let not my medical friend saccuse me of heterodoxy, in making this statement. I have reason for my belief.

When I speak of medicine as a cause of infantile mortality, I have no reference—not the remotest—to that small amount of it which is given at the prescription of the family physician. There may have been error here; there certainly *has* been, in all time and countries, *unless it is our own*. But I waive all this. Nor do I refer in particular to the enormous quantity of drugs and medicines taken without the prescription of any person duly qualified for the purpose, beyond the pale of the family—a hundred times greater than the quantity given by all our regular physicians of every school.

But I would aim chiefly, in these paragraphs, at what I have been accustomed to call maternal dosing and drugging. Bad as the world is, in other departments of drugging, this is more prolific of infantile disease and premature death than all else, except bad cookery; of which, by the way, I have said something in a former number.

Mothers assume to understand the constitution of their own children; and almost deem it an insult to be told of their mistake. Yet they are mistaken. Reasoning *a priori*, it is impossible, or at least next to impossible, for those who are situated as mothers generally are, to understand enough of the laws of hereditary descent, temperament, &c., to be able to understand what is almost impossible to the wisest physiologists and physieians. And then, as regards the plain matter of fact, their mistake is still more obvious. They almost every day, for example, treat their scrofulous ehildren—amounting to one third or one fourth of the whole—in a manner diametrically opposite to what they would have done had they understood the nature of the case and how the first symptoms of latent scrofula manifest themselves.

And yet it is almost as much as one's reputation is worth, whether in the profession or out of it, to run the risk of giving to our mothers this little piece of information. And the hazard is great in exact proportion to their ignorance. An ignorant mother is, next to the Pope of Rome, the most infallible of all human beings! I mean, of course, in her own estimation. You may reason, sometimes, with an intelligent mother—seldom with an ignorant one.

But whether ignorant or somewhat enlightened, the vast majority of our mothers doctor, more or less, their own children. At least, if they refuse to call it *doctoring*, they give them a vast amount of small elixirs, cordials, &c. The closets of not a few house-keepers are a complete apothecary's shop. They may, it is true, have smaller parcels than the regular apothecary; but they have almost as great an assortment. And they not only keep it; they administer it. They may not intend it; they *do not mean* to give *much*; sometimes they really *think* they *do not* give much. But it comes to pass, in the course of the year, that

much is given by somebody ; and I greatly fear that the mother must be held responsible for it.

True it is, that no mother confesses to this crime of dosing and drugging. As it used to be with tight lacing of the chest, that no one was guilty herself, but almost everybody else was, so in this matter of drugging and dosing children. Yet how often have I seen these very mothers with their bottles or phials on the steamboats and railroads of our country—hardly willing to wait for the arrival of the cars at a “station,” before they administered the needful elixir, but actually administering it on the road !

But now for the consequences of this maternal dosing ; for this it is with which medical men have chiefly to do. Next to bad food and wretched cookery, as I have before intimated, this error is productive of more sickness and premature death than any other. No physician knows what to do with a sick child, who has been thus tampered with. He may indeed *guess a little better* than others ; but even *he* will often *guess wrong*. Their first passages are irritated, and perhaps inflamed ; and if it were possible to make the right appliances either internally or externally, it would still puzzle the wisest head to know how to apportion the quantity so as to be more likely to do good than harm. Diseases, in these circumstances, as you know, are more apt to be severe and complicated, and the termination more likely to be fatal, especially if much medicine is used.

The worst remains to be told. As it is not always easy to trace the cause of severe, protracted or fatal infantile disease to maternal error, we not only contrive to kill, from generation to generation, by thousands and tens of thousands ; but we partly kill by millions. If all the mischief that is done could be concentrated, as it were, in a few, and were to kill them outright, so that every body might see that they fairly died of violence, there might be hope. But no ; we seem to be left to grope on in ignorance, and not only to kill, continually, but to *partly* kill many more. We bring on, gradually, some disease or other ; or we render an inherited disease, which might have been mild, very severe, or early fatal ; or we aggravate, by over-dosing the symptoms of acquired diseases from other causes. We clip from the existence of one child or person, a year ; from another, two or three years ; from all, or almost all, something. The aggregate of these clippings, so to call them, every year, though it cannot be exactly ascertained, is, no doubt, fearfully great, and fearfully increasing.

I have sometimes thought maternal dosing was a little more mischievous in the families that confide in the homœopathic and botanic treatment, than in those who adhere to the old system. I will tell you why. They seem to think vegetable medicine, and even small doses of mineral medicine, so harmless that they may dabble with them when and where they please—almost without reserve or limitation. Perhaps this is not justly chargeable on the systems themselves, but only an incidental evil. But this does not alter matters of plain fact ; and if the public are killing their children with too many small shot, as well as with musket and cannon balls, it should be known, that

that the evil may be guarded against, or, if possible, removed.—*Boston Med. and Surg. Journal.*

AUBURN DALE, Sept. 9. 1854.

Viviparous Fish.—Dr. Bennet Dowler has recently discovered in the vicinity of New Orleans a small osseous fish, which proves to be viviparous, having no less than twenty-two well formed young in its body at the time of examination. Dr. D., however, yields the priority of description of viviparous fish to Dr. Gibbons, who found them in California.

A case of total Inversion of the Uterus of many years' standing, in which extirpation of the entire organ was successfully practised by Dr. E. Geddings, is reported in the Sept. No. of the Charleston Medical Journal.

Professor Trousseau recommends the extract of belladonna, in doses of one-fifth of a grain, three times a day, as a remedy par excellence for habitual constipation. With great deference to this distinguished savor of France, we would suggest that his remedy will be far more successful if he will add thereto 3 grs. of P. Rhei and 1 gr. of P. Ipecac; these being the constituents of Professor Chapman's "Peristaltic persuaders." The latter will succeed when the Belladonna fails.—[*N. Y. Med. Gaz.*]

Professor Simpson propounds the theory that Phlebitis is contagious, and, like epidemic erysipelas and puerperal fever, may be communicated by the hands or instruments of the operator. Hospital gangrene he would place in the same category. If this theory be true, a new corps of surgeons should be enlisted for the New York Hospital at this present writing, for those on duty are making sad havoc by spreading the poison, if the reported fatality by the latter disease be correctly stated.—[*Ibid.*]

In Chlorosis, the salts of manganese are now very generally substituted for those of iron, in Germany, and the testimony is very strong in their favor, as appears by the Foreign journals —[*Ibid.*]

Medical Prize Question.—The New York Academy of Medicine, through the liberality of a few of its members, offers a prize of \$100 for the best essay on *The Nature and Treatment of Cholera Infantum*, to be presented during the ensuing year. The trial for the prize is not restricted to the fellows, but is open to the Profession throughout the country.—[*Boston Med. and Surg. Journal.*]







